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ERRATA.

Page 73, fourth line from bottom, *for* one-eighth *read* one eightieth.
,, 74, line 16, *for* one-sixth *read* one-eighth.
,, 147, line 10, *for* precedes *read* succeeds.
,, 162, ninth line from bottom, *for* result *read* tendency.

MENS CORPORIS.

CHAPTER I.

INTRODUCTION.

THE operations of the mind in sleep have not been investigated with the attention they deserve. Dreams have been considered too vague and uncertain in their nature to be submitted to analytic investigation, and almost unworthy of metaphysical inquiry. But it has justly been observed by one of our most celebrated writers on mental philosophy, that "the subject is not only curious, but important. It appears to be worthy of careful investigation; and there is much reason to believe, that an extensive collection of facts, carefully analyzed, would unfold principles of very great interest in reference to the philosophy of the mental powers[*]."

It is remarkable that the subject of dreams has excited so little attention in the way of philosophical inquiry. They are indeed not unfrequently made the theme of desultory conversation and vague speculation; but there are very few argumentative dissertations concerning them, though it might have been supposed that a subject so intimately connected with the powers and operations of the human mind would engage attentive consideration.

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[*] ABERCROMBIE.

The mysterious and shadowy nature of dreams well adapts them to the use of the poet, and consequently, from the earliest times, dreams and visions have formed part of the material of poetry. Whatever has the semblance of mystery—every thing of a mystic nature—is captivating to the mind. Hence it might be expected, that the attention of mankind should, at a very early period, have been given to the mystic representations of sleep; and this not only by the unlearned and the superstitious, but also (for the feeling is universal) by the philosophic inquirer into the hidden principles of the natural system.

The nature of sleep and dreaming appears to have engaged the attention of the Greek and Roman philosophers at a very early period; and in their works are interspersed many curious observations concerning dreams. Aristotle and Cicero, especially, have thrown much light on the subject by their philosophical mode of thought and discussion. Among others may be mentioned Plato, Democritus, Epicurus, and Lucretius. But although several of their remarks, and some of the opinions they advanced, are justly entitled to praise, and worthy of the great men from whom they emanated, yet they are so debased by the superstitious ignorance of the time, that the poet in his imagination, and the philosopher in his theory, become dupes and slaves of the superstition, ignorance, and prejudices of the age. With few exceptions, dreams were considered by the ancients to be supernatural; not the operations of mind, but instigations of the celestial or infernal deities.

The hypotheses framed to explain the cause of dreams were numerous, and most extraordinary. Epicurus thought they were produced by spectres or images emitted from corporeal things, which, floating in the air, penetrated from their subtlety and tenuity into the mind, and excited a mental perception of those things of which they were the representations.

Plato supposed dreams to be produced by the agency of spirits, good and bad, the nature of the dream indicating the disposition of the spirit who was the instigator*.

Some fancied dreams to be divine intimations, and others, "ethereal essences," whatever they might be. Others again thought, that the mind during sleep becomes released from the body, and that dreams were caused by the unrestrained action of the mind when thus separated from the body. This opinion (chiefly of the Platonists) has been advocated by some modern writers.

Dreams were classed by the ancients as follows:—

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* Petronius appears to have been of a different opinion.

Somnia quæ mentes ludunt volitantibus umbris,
Non delumbra deum nec ab æthere numina mittunt,
Sed sibi quisque facit.

Somnium, a mysterious representation, which was considered to be figurative and emblematical; not to be understood literally, but requiring interpretation. *Visio*, was an anticipated representation. *Visiones*, were those dreams in which the future event was exactly represented. *Oraculum*, was an inspiration, a communication immediately from the deity. The oracular dream was an appearance of the deity, and sometimes of a priest, or other venerable personage, who foretold a coming event. Another species was termed *Insomnium*. It comprehended those dreams which take place in illness, during bodily excitement and pain, or which are caused by the locality or position of the body while asleep.

This species of dream was supposed to arise, chiefly, from some uneasiness of mind produced by the state of the body, which was distressing in the waking state, and continued to be so during sleep. By the *Phantasma*, which is called *Visus* by Cicero, was indicated that species of dream or vision which takes place between sleeping and waking; the *Ephialtes*, or night-mare, was included in this class.

A more simple division of dreams was made by some writers, who divided them into two species,—true, and allegorical or representative. The first included those which revealed coming events by exact representation; and the latter, those dreams which revealed them only by obscure intimations.

The peacefulness of dreams was attributed by the ancients chiefly to the sobriety of life, and the temperate state of the body when committed to sleep. In a calm condition of both mind and body, the nerves are most tranquil. Hippocrates draws conclusions of the temperament of the body from the nature of the dreams. Morning dreams were considered true; and this belief, in the opinion of some, arose from the probability there was that these dreams were not caused by bodily irritation[*].

For this reason, those who desired propitious dreams were particular in their diet. Curious properties were attributed to various kinds of food, and certain vegetables, especially, were in estimation as dream-causers. Even the species of the dream, it was asserted by the soothsayers, could be obtained by the appropriate diet. To a great degree this is true; for that which is not easily digested will conduce much to a restless sleep; the dreams called phantasma and insomnium are the usual results; with the disagreeable addition frequently of the ephialtes[†]. There is every reason to suppose, that the priests were well acquainted with the divers means of inducing dreams by material influences. The effects, thus originated, could be easily increased to the required extent by the force of superstition on credulous minds. It would have been difficult, even for a sceptical votary, to withstand the combined agency of mind and body, enforced also by the universal belief of the time.

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[*] CICERO *de Divinatione.*

[†] Ex magna cœna stomacho fit maxima pœna:
Ut sis nocte levis, sit tibi cœna brevis.
Schola Salernitani.

The somnium and visio were supposed always to come from the gods above; the phantasma and insomnium, the common class of dreams, from those below; and the fabrication of these dreams, the ancients appeared to think, was a becoming occupation for the inferior sort of deities; the other gods only condescending to instigate oracular dreams[*]. Thus propitious dreams came from heaven, and ill-omened from the earth[†].

The interpretation of dreams was reduced by the ancients to certain fanciful principles, and practised by men who engaged in it as a profession.

In the usual course of events, some interpretations would be correct; and since men, biassed by that which is marvellous, "mark only when they hit, and take no thought of what they miss[‡]," one event accurately foretold would confirm in many a belief in the supernatural revelation of events, even in the ordinary concerns of life.

In the days of Augustus, a law was enacted, that all who had dreams relating to the state were to make them publicly known. At a period when dreams were considered oracular, as direct communications from the gods, it is not surprising that they should have become subject to legislative enactments. The presiding divinity of the state or city might reveal the plots and designs of conspirators, and the safety of the nation, it was supposed, might be involved in the accurate interpretation of a dream, and in the strict attention to the advice and directions which it might be considered to convey.

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[*] By *ἐνύπνιον*, *insomnium*, was meant an ordinary dream; but by *ὄνειρος*, *somnium*, a dream foretelling an event.

[†] Falsa ad cœlum mittunt insomnia manes.—VIRG. *Æn.*

Ω πύτνια χθῶν
Μελανοπτερυγων μᾶτερ ὀνείρων.—EURIPIDES.

[‡] BACON.

Sleep was generally personified by the ancients as a female figure with black expanded wings. The emblematic representation of a dream was a figure clothed in a white garment over a black one. Morpheus, the god of sleep and dreams, (so called from *μορφὴ*, *figura*, in allusion to the various forms he was supposed to produce in the imagination of the sleeper,) "artificem simulatoremque figuræ[*]," is sometimes represented as a man advanced in years, with two large wings on his shoulders, and two smaller attached to his head; this is the manner in which he is usually represented.

In the Museum Pio-Clementinum, he is sculptured in relief on a cippus[†], as a boy, treading lightly on tiptoe; on his head two wings, in his right hand a horn, from which he appears to be pouring something, in his left a poppy-stalk, with three poppy-heads. On a relief in the Villa Borghese, the god of dreams is again represented as a boy, with wings, and holding the poppy-stalk, but without any horn.

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[*] Ovid, *Met.*

[†] The cippus was a small grave-stone, generally a column, sometimes without either base or capital. It bore an inscription to preserve the memory of an event, or to record the death of some relative or friend of those who erected the cippus. Cippi were also used to mark boundaries and distances, and to direct to cities or roads; also to point out consecrated places, and indicate the locality of the private burial-grounds belonging to particular families.

Artemidorus, who lived in the reign of Antoninus Pius, wrote a learned work on the interpretation of dreams, still extant; to this work has been annexed the *Achmetis Onirocritica.* An edition of the *Onirocritica* of Artemidorus was published at Leipsie, with the *Commentary* of Rigaltius and Reiske, by Reiff.

The moderns have not been deficient in the number or the singularity of their hypotheses and conjectures concerning the origin of dreams. Baxter, in his *Enquiry into the Nature of the Human Soul,* imagines that the mind is entirely under the control of spiritual beings during sleep. Dr. Bull, bishop of St. David's, expresses the same opinion, so also do Sir T. Browne and Sir H. Wotton. Dr. Cullen compared dreaming to madness. Darwin attributed it to the suspension of the power of volition during the continuance of sensation. Some metaphysicians suppose the mind to be constantly occupied in sleep. Locke contended, that as the mind cannot remember all its sleeping thoughts, it does not always dream. Haller was of opinion that dreaming cannot take place in sound sleep. Hobbes considered mental action in sleep to arise solely from the state of the body; that dreams were diseased mental actions—

not the natural and proper operations of mind; and that, in profound and healthy sleep, dreaming could not take place.

Wolfius and, after him, Formcy have supposed that dreams never arise in the mind except from sensation.

Dr. Beattie and others relate several curious examples of dreams happening under peculiar circumstances, and confirming the opinion of Wolfius as to the extraordinary effect produced on the mind of the dreamer by the conditions of the body. But these afford no proof that dreams cannot arise in any other manner.

Hartley, Dugald Stewart, and Abercrombie, have treated the subject philosophically, though without coming to any clear statement of the method of the mental action in sleep. The Encyclopædias give the various theoretical notions of different writers on the nature and operations of the mind in sleep, with several examples in especial reference to this subject. The last, and indeed the best, of these, will be found in the *Penny Cyclopædia,* published a few years since.

Many persons never dream; Dr. Beattie and others mention several instances. Some only dream when unwell; and it is no very uncommon case that illness induces the habit, or possibility, of dreaming. Aristotle considers that when dreaming does not take place in early youth, some constitutional change is necessary to cause dreaming to be possible. When the constitution has become settled and established by mature age, and sleep has always been profound, and without dreams, it appears reasonable to suppose a constitutional change, by illness or otherwise, necessary to induce a condition of sleep so very different.

Many very beautiful fables have been written, both by the ancients and moderns, in the form of dreams. The *Somnium Scipionis* is one of the finest of Cicero's compositions; this and the *Commentary* of Macrobius upon it, give great insight into the ancient philosophy. Macrobius lived towards the end of the fourth century; he wrote a *Commentary* on the *Somnium Scipionis*, full of platonic opinions.

CHAPTER II.

THE NATURE OF MIND, AND THE SENSATIVE AND INSENSATIVE STATES.

SECTION I.

IN commencing every philosophical investigation, the extent to which the subject to be considered is susceptible of demonstration, should be accurately determined. But it is difficult to discover where those boundaries lie which nature has placed to the powers of the mind; those limits beyond which reason must give place to imagination, and demonstrative proof to hypothesis. It is probable that the mental powers are circumscribed in the investigation of their own nature, and even in determining the very limit by which their self-knowledge is restrained. But any attempt to advance the confines of our knowledge of mind, is not to be checked by anticipated failure; we know not as yet the exact position of those confines, and it cannot be asserted that we are already on their verge. Therefore, although there is a point beyond which all is dark, an infinite space which our intellect can never penetrate, an horizon which is never to be attained, though dimly seen through the misty glass of philosophy,—we should not be daunted by the conviction of this truth, but improve the powers we already possess by every method which science, observation, and research can suggest, and unwearying perseverance effect.

But it is not by hypothesis, however ingenious, that philosophic truth is to be learned, but by accurately observing the phenomena of nature*; and it should always be had in remembrance, that to this observation of nature is all analysis restricted.

"The great object of philosophy is to ascertain the simple or ultimate principles into which all the phenomena of nature may, by analysis, be resolved†."

Hypothesis, however, is a powerful ally of philosophy, and it is the most effective instrument which can be used for discovering truth. Although it is but a tool, and when found useless and ineffective may be cast aside, it gives great advantage to philosophical investigation, for it reduces to scientific form heterogeneous materials, and gives them a definite and tangible shape. Hypothesis may be the truth, for it may be truth not yet ascertained. It is by hypothesis, framed with a bold but cautious sagacity, that the boundaries of science have been extended; and it is by this method of investigation that principles which once seemed placed far beyond the reach of human intelligence, have been subjected to demonstration, and thus constituted a part of rational and sound philosophy.

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* "Non frigendum aut excogitandum, sed inveniendum quid natura faciat aut ferat."—Bacon.

† Chalmers.

Metaphysical systems are but intellectual trifles, and as to their utility, it has been well remarked in the following passage, that "they are mere creatures of the fancy, and they are as much in contrast with one another as could be expected with reference to the nature of their origin. The low estimate in which they have been held by the common sense of the bulk of mankind, has not been without justice, though it has only arisen from a sort of blind instinct. Men may be dazzled by what they hear, particularly when it is accompanied by the charms of a pleasing style and graceful imagery; but if the foundation be not laid in nature, it makes no more impression on the mind than a passing cloud in summer; for nothing can produce lasting conviction, or create a desire for closer acquaintance, but what is the very image of truth*."

Mathematical science appeals not only to the reason, but also to the senses. It always has reference to matter, therefore it is not solely of the mind, it is not a simple mental production.

Metaphysical science considers abstractions only; it examines the relation existing between thoughts which have no real prototype. The mind is consequently unaided by the presence, actual or imaginary, of real objects, and is therefore completely thrown upon its own resources. The metaphysical science is purely mental, the mathematical savours of what is material. The first is necessarily visionary, the last certain; hence metaphysical science may be considered in itself useless, because visionary; and mathematical science useful, because certain. One is of all subjects the most practical, the other the most imaginative.

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* *Prodromus*, by Sir G. C. Haughton.

Metaphysics are the romance of intellect. The abstract nature of these sciences renders them of all studies the most invigorating to the mind. Their uninteresting nature, and their obscurity, require the greatest attention and perseverance; and their difficulty, a clear perception, with the power of accurate and subtle reasoning.

But where these sciences are rendered subservient to the elucidation of the operations of nature, they lose their dulness, and the interest of the investigation extends to the means by which it is to be effected; they are closely allied, for each is applied to abstract reasoning.

It will be necessary to investigate, in some degree, the nature of matter and mind. Whatever is known of matter is discovered by the senses; any properties of matter which are not cognizable by the senses (if such there be) are unknown, and as if they did not exist. And of the mind, since we know not what it is, nor how it is affected by matter through the medium of sensation, so likewise we cannot assert what it is not, nor by what it may not be affected. We may be ignorant of the essence both of matter and mind. It is possible that matter may have properties not cognizable by sensation, and mind properties which its own powers are unable to perceive. We may or may not know all the properties, the entire essence, of any portion of matter, but we cannot assert, in any one case, even of the minutest particle of matter, what proportion the knowledge we possess bears to our ignorance, what ratio the known has to the unknown. Neither do we know more of the essential nature of the ultimate properties of mind. "All that remains for us, in that impossibility which nature has imposed on us of attaining a more intimate knowledge of the essence and constitution either of mind or of matter, is to attend to the phenomena which they present, analyzing whatever is complex, and tracing the order of every sequence. By attentive reflection on the phenomena themselves, and on all the circumstances which precede or follow them, we shall be able to discover the relations which they mutually bear, and to distinguish their casual coincidence or succession from those invariable relations which nature has established among them as causes and effects. This, humble as it may seem, is the true philosophy of man, because it is all of which man is capable. To inquire, as may be thought, more deeply into the essences of things, or the nature of certain supposed bonds by which they are connected, is to show, not that we have advanced far in the progress of science, but that we have gone far astray; not that we know more than philosophers of humbler views and pretensions, but that we know less, since it proves that we are unacquainted with the limits within which nature has bounded our prospects, and have not attained that prime knowledge which consists in knowing how little can be known*."

Nothing can be known of matter except under those conditions in which it has the power of influencing the senses; without matter there could be no sensation, and no mental action, consequently, no perception and knowledge of the existence of either matter or mind. The consciousness of mental action constitutes mental knowledge; by mental action we are convinced of the existence of mind. Mind might exist without the possibility of action; sensation might be possible, but not exercised. Matter might exist, and yet remain unknown; but under the influence of matter the mind acts, and acting perceives sensation. Consequently, at first, mind could not act without the presence of matter, and without mind matter could not be perceived. Without matter mind could not begin to act, and therefore could not perceive either its own or any other existence. Neither mind nor matter could be known to exist without the simultaneous presence of both. Thus matter is the primary cause of mental action. Why sensation should excite mental action, or be itself roused to activity by matter, are questions beyond the reach of inquiry; but it is impossible to suppose that sensation could be produced without the presence of matter, or that mind should act without a previous sensation. Sensation having caused mental action, that action becomes permanent; for the thought which is the result of that action remains in the mind, and can be recalled by memory. How the mind reproduces the thoughts of past time, is another of those questions which, like all inquiries into the essential nature of mind, must for ever baffle the utmost scrutiny. Whatever mind may be, it can be known solely by its action; only the operations of mind can be investigated.

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* Brown.

Memory is a mental action, but requires no immediate sensation to cause its exercise. Memory is thus unconnected with external objects, and it may be exercised independently of sensation. In consequence of the perpetual exercise both of sensation and memory, we are constantly sensible of two different species of mental action, one in which the senses are employed, the other in which they are not. We can also perceive two totally distinct properties in nature—that which is cognizable by the senses, or the material; and that which is not cognizable by the senses, or the immaterial. Thus two properties can be perceived in nature, which are totally distinct from each other; and the cause of our belief in the existence of matter as a substance different from mind, is, that the thoughts produced by the senses are essentially different from those which are not produced by sensation.

These two species of mental action may be described as external and internal: the first, or sensation, brings the mind into immediate contact with surrounding objects; the last, or reflection*, is the operation of the mind uninfluenced by matter. Thus mental action is either external or internal, and all thoughts which arise in the mind are caused either by sensation or reflection. The thoughts produced by memory are the sensations and reflections of past time, forming the mental action of the present. Thus, when the material of thought has been introduced into the mind, it has the power, independently of matter, to operate, by the agency of memory, in reflecting on the thoughts of past time.

Sensation, that is, the mental perception of sensation, precedes every other mental action, and therefore all ideas are of material origin, even the most abstract, and the farthest removed from sensation. It would be impossible to trace back to its origin any idea, without requiring the presence of matter in the primary and initial state of mind, when that idea, or its elements, (that is, the ideas of which it might have been composed,) was first formed in the mind.

Mental action is the operation of the faculties of the mind; thought is the result of the exercise of those faculties: thus mental action and thought coexist; they cannot be conceived separately. Mental action is the cause, thought is the result. An idea* is the subject of thought: thus thought and idea co-exist; they cannot be conceived separately. Therefore, in effect, mental action, thought, and idea, are synonymous.

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* "Reflection is the perception of the operations of our own minds within us, as it is employed about the ideas it has got." —LOCKE.

If all ideas arose from sensation, the mind would not have the power, which it has, of creating ideas independently of sensation. But if all ideas do not originate in sensation, (that some do, is certain,) then there must be an internal source from which ideas are produced. The external operation of the mind, or sensation, is evidently not the cause of all ideas; for reflection, the internal operation, forms new ideas, and ideas which sensation could not form, from those produced by the external operation; and thus there are ideas both external and internal. It cannot be reasonably supposed that ideas exist or arise in the mind without cause, neither is such an assumption required; for all ideas may be distinctly traced to sensation or reflection; and if there are no innate ideas, then all ideas are produced either by the external, or by the internal, mental operation.

The mind is conscious of its own action, and the greater distinctness of the ideas formed in the mind by matter, through the medium of sensation, when compared with those produced by memory, induces a belief that the causes of these two species of ideas are different. "The ideas of the imagination are transient and fleeting, and create no opinion of durability, though there is perceived an idea of the object within the mind*." It is this durability and uniformity in the impressions of sensation, that cause the ideas created by the senses to be in their nature so different from the ideas formed by memory; so different are they, that the two species of ideas co-existing can never be mistaken the one for the other. Thus, although ideas of either species may be constantly interchanging during the process of thought, one species is never mistaken for the other. This co-existence and co-action of ideas formed by the material and the immaterial, by matter and mind, by matter on mind, and by mind on itself, render futile all attempts more accurately to define their nature, and prove such definitions to be impossible.

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* The term idea is to be understood as meaning "a momentary thought;" whatever constitutes the mental action of the minutest portion of time. In this sense, the word may be defined as "a unit of thought."

If the mind in its first condition be supposed a blank, without any ideas, then does mental action, or idea, constitute mind; for mind cannot be conceived separately from its action, that is, from its ideas. Consciousness of mental action constitutes mental knowledge; by mental action we know and are convinced of the existence of mind. The mind is composed of previous thoughts; it consists of ideas of external and of internal formation. Whatever be the essence of mind, it cannot be more accurately defined than as "a compound of ideas." This is not to be understood as interfering with the essential nature of mind; it refers only to that which we are able to know of mind, that is, to its operations. The mind revealing its existence only by its activity, the action, thought, idea, are all which can be known; but the ideas of the mind are not the mind; there must be a substratum sustaining the action. In this sense, mind is the consciousness of ideas previously formed (or memory), and the consciousness of ideas in present formation. It is the consciousness of past and present mental action; the conscious exercise of sensation and reflection. The mind cannot be imagined distinct from its ideas; to us the idea is the mind; it can be thought of only as a compound of ideas; and mental identity (which assumes divers minds existing,) is constituted by the ideas which together form the individual mind: the ideas which are in the mind, those which have been previously formed, constitute mental identity.

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* HARTLEY.

SECTION II.

To imagine anything existing without cause, is contrary to the very nature of the intellect of man. The human mind is so constituted, that it involuntarily considers all things to be connected by the relation of cause and effect. This innate propensity of the mind to perceive causation, is the essence of all philosophical inquiry. Hence the disposition of the mind to trace a present effect through a series of causes, not an infinite, but a limited series, terminating in a self-created cause.

Experience cannot produce in the mind the perception of causation; for, by experience only, the mind could not anticipate causation in everything about to happen; experience is limited to events of previous occurrence. Experience only regards past events; the thoughts of experience are those of memory. By experience only, varying events could not be anticipated from new combinations of circumstances. Continued experience does not extend beyond those cases which have been perceived to be invariable; neither, in any succession of events, could the mind, without an innate disposition, perceive anything but an invariable succession of events. Habit might cause the mind to anticipate any one particular event after any other particular event; but this exercise of experience and habit fails to give a satisfactory reason for that impression which is produced on the mind when reflecting on the succession of events, "that a causative power exists." If habit, which arises in this case from a continued experience, produce the perception of a causative power, it can only produce it in those cases in which habit is an agent; but the effect habit produces on the mind, is distinct from that produced by the observation of the occurrence of cause and effect in other instances, where habit cannot have had any influence, as, for example, in the operations of nature, for one is general, but the other particular and limited; and yet, in both instances, the mind simply observes the succession of events. A substance, of whatever nature, must have existed uncaused from all eternity, and therefore existence is not necessarily a proof of causation, it is not necessarily an effect. For if existence be considered a proof of previous causation, that is, to be the result of a cause, it must first be assumed that an infinite succession of causes and effects has existed, and always will exist. It would then be absolutely necessary to assume an infinite series of cause and effects, that is, to assume what is inconceivable. Therefore, since mere simple existence cannot prove causation, but yet that the change from one mode of existence to another produces the perception of causation, impressing the mind with the idea of a cause producing an effect; and that experience does not afford a sufficient explanation,—no satisfactory reason can be given for this peculiar mental apprehension, but that an innate disposition induces the mind to attribute to all events in succession the relation of cause and effect.

The mind is evidently endowed with powers designed to produce certain effects, and of these effects is the apprehension of causation. It is in perfect accordance with our experience of the nature of mind, to believe that it should be capable of perceiving the changes from one mode of existence to another; that is, of perceiving the relation of cause and effect.

If the principle of causation be admitted to exist in the mind as a natural element, the perception of design and system is a consequence of that principle. These ideas arise involuntarily, for this innate principle of causation will influence the mind; and the perception of a universal uniformity of cause and effect is the perception of design and system.

Design cannot be supposed to exist without presupposing causation; for design implies a cause, and an intended effect produced by that cause. Design is the adaptation of causes—is a prior cause.

Mr. Hume professes to prove, that the belief of the uniformity of future events is caused by the influence of custom, and consequently that the assumption of an intuitive anticipation is unnecessary and superfluous.

"Mr. Stewart has brought together all the authorities which have more or less, not only countenanced, but even forestalled Mr. Hume in his position,—that we know nothing of causation except by observing a constant junction between two events or two facts. This is unquestionably true. * * * * The inference which forms the ground of this expectation, forms the ground of our belief, that the one event occasions the other; that there is a relation between the two, a connexion beyond the mere relation of junction and sequence; and that the one, the preceding event, exerts an influence, a force, a power, over the other, and produces the other.

"This constant conjunction, therefore, in point of fact, is the ground of our belief, and is the origin of our ideas of causality or causation. So far, we must admit the doctrine in question. That it is the only ground of the belief, and the only origin of the idea, may admit of some doubt. * * * * The mere constant and unvarying succession of two events would not of itself be sufficient to make us, even in popular language, denominate the one a cause of the other. * * * * Our minds form, whether we will or no, another idea—not merely that of constant connexion or succession, but of the one exerting a power over the other by an inherent force; and this is the idea of causation*."

The first idea which enters the mind concerning the relation of cause and effect, arises from the perception of bodily motion immediately following the mental desire or will: and it may be, that the idea of power which is thus formed, being always associated with predetermined change, is the reason that the ideas of cause and effect are constantly associated in the mind with an inherent causative power.

SECTION III.

If any proposition were self-evident, it would be that which asserted the universality of design and system in the works of nature. Design is the prevailing attribute; it is universal, and it is also beneficial.

The consciousness of mind is the first assumption which can be made of necessary existence; for it is evident, that if we believe the existence of anything, we must of necessity believe in the reality of mind. A belief in the reality of the material world, presupposes our own existence, that is, the existence of the mind, which is conscious of such externalities. We who are consciously perceiving other existences, cannot but exist ourselves. Therefore, although the existence of matter could not be proved, that of mind cannot be doubted.

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* Lord Brougham.

Certain ideas, by the uniformity of their impressions, and by the subsequent action they produce in the mind, create a belief, and convince us of a prevalent tendency to design and system in the works of nature, and of universal and beneficial adaptation and contrivance in all of which the mind has knowledge, whether animate or inanimate. This conviction is independent of the existence of matter; and were that which we term material nature, a delusion—an effect produced on the mind in some unknown and unintelligible manner, yet would these ideas remain the same, and the conviction of the prevalence of design and system would continue unaltered. This conviction is apart from material substance, for it is urgent, although every material existence should be doubted. Therefore the assumption would be correct, even if only mind existed.

Utility is the great plan of nature, and all things are caused to be subservient to the general good. Each work of nature forms part of this design;

nothing has been made in vain, or created imperfect in formation and adaptation. Wherever design is not perceived, that apparent exception should be attributed to ignorance of its true position in the system of the universe, and not to any innate defect or departure from the general plan. Thus, it is probable, a greater degree of knowledge would reveal adaptation and utility in that which before appeared defective and useless; it may even be supposed, that, where nature seems to have planned for other purposes than the general good, a more extended and perfect knowledge would show utility and beneficial design. To our imperfect apprehension, many things may appear to be without design and system, even unnecessary, useless, and perhaps noxious, which, to an infinite mind, would appear to be component parts of a universal and perfect design. Therefore, never let it be imagined that the labours of nature are cast away, and that any portion of the fabric it has raised is useless and imperfect. An unnecessary effect is never produced, for an unnecessary cause was never created. Therefore, from this universality of beneficial design, and of perfect adaptation in the works of nature, however imperfect, useless, and devoid of design, any part of the natural system may appear to be, such apparent defect cannot be considered an exception to the general design; but, on the contrary, it may be supposed to be part of the great system of nature; that it is perfect in structure and adaptation, but that its true position in that system is as yet unknown. That design exists, and universally, in nature, is sufficiently evident —too evident to require any attempt at proof. Neither would it be a consequence that design did not exist (even universally), because unperceived. It might be, that design was imperceptible, although existing. Thus it might be asserted, that "the present system of nature is not a scheme of optimism;" and that "there are cases in which perfection, design, system, and adaptation are not perceptible:" but this does not prove that they are not even universal.

Design is to be found not only in the construction, the adaptation, and the intended result; but also in the mode in which that result is produced. There is design in action. Nothing is irregular in its operations; every operation is conducted on a fixed and certain plan, and directed by systematic rules: design is effective through system. If design exists, and its operations are effected by system, that system operates with uniformity and regularity of action; for a system without order, would be a contradiction in terms: uniformity and regularity are as much parts of perfect system, as system is of perfection in design. The adaptation of few, and previously existing causes, to produce new effects, convinces the mind of wisdom in design, and perfection in execution. Skill is more displayed in effecting results by the ordinary operations of causes acting in accordance with their usual system, than by the exhibition of extraordinary power, and the application of new elements to produce those results. Infinite power may cause infinite effects to be produced; and they would appear but the necessary effects of such a cause; but a limited power, effecting new and unlimited results by simple and apparently insufficient causes, impresses the mind with the conviction that the work is that of infinite wisdom. The less powerful the means, and the greater the effects produced by those means—the more simple the system, and the more complex and various the applications of that system—the greater the skill of the designer, the greater the perfection of the execution. Consequently, since simplicity is an attribute of skilful design, it would be a probable supposition, that simplicity, with infinite variety in adaptation and arrangement, should be observed in the natural system; and that simplicity and uniformity of design and system should be the characteristics of nature*.

If this argument be applied to the operations of the mind in sleep, it will be evident that they cannot be considered as the unrestrained energies of the mind acting without order, restricted by no rules, and incapable of being the operations of mind in an organized system of action; but as the mind acting in conformity to pre-ordained rules. If the mental action in sleep be an exception to that general regularity of system and action, to be observed in every operation of natural causes, it is the only exception to a universal rule; and it is improbable that the mind, of all nature's designs the most subtle and curious, should afford that one exception. It is a more rational supposition, that the mind, at all times and in every state, is regulated by a systematic action, and that an invariable one, than to suppose it at any time to act without system and a designed method of operation. Reasoning from analogy, it is probable the operations of mind in sleep are carried on in strict accordance to fixed laws. It is contrary to all analogy that the mind should act in sleep, and yet without system. If universality of design be admitted to exist, there must, of necessity, be system and order of thought in sleep, as well as during the perfect action of the mind in the waking state. It is no proof of an absence of regularity in the exercise of the laws of thought during sleep, that dreams sometimes appear to be rational, at other times irrational; or that the same system may not prevail in both states, because the results of the activity of the one, are contrary to those of the other; as, for instance, the general irrationality of dreams, and the calm exercise of reason during the waking hours:

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* Astronomy has revealed design and system, in worlds scattered through space at distances to us infinite ; yet in them may be discerned sublimity of design, and the presence and operation of system ; and, more than this, the same general design and system, and the same adaptations of that system observable in this earth, can be distinctly traced in those distant worlds ; thus strengthening the analogy, and confirming the supposition, that design, uniform and simple, exists in every part of the creation.

such a comparison does not prove an absence of system.

A comparison made between the two states of mind merely proves that, during sleep, the mental action, apparently, is not under the influence of certain powers which, at other times, control the operations of mind. It does not prove either an absence (total or partial) of regulating laws; or even that a difference exists between the systematic laws of mental action in the sleeping and waking states. It simply proves a difference in the result of the mental action; and that difference may arise from an incomplete, or less extensive action and exercise of the very same laws. It may be assumed, that the same controlling powers influence each state of mind; but that, in one state, those energies are limited; while, in the other, they possess all their power. Thus, in sleep, the mental faculties may be incomplete in their action; and consequently the appearance of an entire want of system may arise from this difference in the mental action: a difference proceeding not from an imperfect, but from an incomplete action of the mind: so that the mental operations during sleep appear, when compared with a more extended action, to be altogether without organization.

The question then arises, in what the incompleteness of the mental action consists: where the mental process ceases, and what is deficient in the mental action during sleep; what difference there is between the complete and incomplete action of the mental faculties. It will be assumed, that the mental action in sleep differs not from that in the waking state in the system of its action, nor in the perfection with which its operations are performed; but simply in the extent of the powers of action; the one state being a perfect and complete action of the mind, the other an action incomplete, but not imperfect.

If the constant presence of design be admitted, (and if design be limited, where is the line of demarcation to be drawn?) these observations are true with respect to dreams. If design and system are universal in the works of nature, the mind acts by uniform laws. So also in sleep: but the same results are not produced by mental action in the two states. A difference of effect arises from a difference of cause; consequently, since the results of the mental action in the two states are different, and yet in each state the system and mode of action are assumed to be similar, the same cause produces apparently a different result. But a cause may vary in its degree of power, and though in its essence the same cause, may not be in its effect as if it were the same cause: for if it vary in its extent of power, that difference of power may produce a difference of result: the cause is essentially the same, but its causative power is different. Thus a less extensive mental action (a degree of action which, when compared with that in the waking state, is limited, but yet not imperfect,) may produce an effect so different from that caused by the more powerful action of the mind in the waking state, as to appear a distinct method of mental operation; therefore, if the action were similar, and equally perfect in both states, but not equally extensive, the difference in the result of those operations might be so great as to appear the effect of a species of mental action altogether distinct. Thus the difference might possibly be only in the degree of mental action; not a difference in the nature, but in the extent of those operations.

It may (perhaps fancifully) be imagined, that dreaming is an adaptation of nature in the general design of created things, intended to produce pleasure during the periods of needful bodily and mental repose, by lighting up those lost hours of darkness with the brilliant scenery and representations of past and fancied events—scenes presented to the dreamer with even more than the vividness and beauty of reality, and not as the mere creations of the imagination. Dreams are to the sleeper realities, scenes passing before him, events of which he is the spectator, and in which he is oftentimes an actor; to him it is no representation, no dream, it is life.

The beauty and enchantment of a dream depend greatly upon its supposed reality. When awake, the more perfectly the mind can divest itself of materiality, and be abstracted from surrounding objects, the more sublime and beautiful are the images raised up, and the scenes presented to its view, by the thoughts of the imagination. The reason of this is, the nearer approach to reality of the scenes which are represented. The power which the mind has of abstracting itself from surrounding objects, enables it, even in the waking hours, when under a powerful impulse of the imagination, to cause ideas so far to put on the semblance of a dream as to destroy the consciousness of time and place.

Some of the circumstances under which dreams occur, appear to confirm this supposition. Those who have undergone great pain and suffering from starvation, are said to describe their dreams as being peculiarly beautiful. Some persons have submitted to deprivation of food for the express purpose of inducing dreams of a poetic nature, and have, by their own statements, been rewarded by an abundance of dreams peculiarly brilliant and enchanting, infinitely more so than at any other time.

It is singular that dreaming should be possible during the severest pains of hunger, and still more so, that under such circumstances they should be of any other kind than distressing.

The disposition and capability to sleep arising from exhaustion, is also greater than at other times. It is not an unreasonable supposition, that the increased inclination of the body to sleep, and of the mind to be occupied with peaceful dreams, is an adaptation of nature to relieve misery of the most poignant kind.

It cannot be argued that design does not extend to minutiæ: a design is imperfect if not extended to the minutest details. It is to be anticipated, therefore, that an accuracy of detail should be found in every branch of the natural system.

A curious example of the wonderful minuteness of detail in the application of system, and of the universality of systematic organization and arrangement of matter, is the peculiar symmetry of algebraical formulæ. Very complex involutions of number and quantity are represented by formulæ of remarkably regular and orderly appearance; and this, not from any intention on the part of mathematicians, or even from the nature of the analysis itself, but simply from the action of the innate laws, by which matter is regulated in the combination of its atoms. Crystillization is another instance of the same species of adaptation. Even disease affords a curious proof of the prevalence of design and system; for every disorder has its peculiar symptoms and is subdued by specific remedies. Each disease passes through a certain course, has its periods of comparative repose, and those of its greatest violence; the critical times when medicine becomes useless, or the ailment is subdued. It is singular, that design and system have been extended to those very cases which are themselves at variance with the general plan of nature. Even in those instances in which the insidious thread of the evil principle has most conspicuously woven its network around material nature, is the same adaptation of organization to be found as if no change had taken place, and all things remained in their primitive and perfect condition.

The origin of evil must ever remain a mystery. But evil does not alter the adaptations of the natural system; it pervades and penetrates every thing; it hovers over nature, shadowing that perfect light in which all things were created, but the design and system remain unchanged. It leaves unaltered the main principles of the great design. It casts a deep gloom over the creation, but yet may be itself part of an incomprehensible and mysterious plan.

There is in nature only one universal and active principle. There cannot be two such principles, for the directing principles of nature are either similar or dissimilar. If similar, they are as one; if dissimilar, they destroy each other. The unity of design visible through the whole creation in all its infinite variety, proves the existence of one single principle that must act universally, or it ceases to be a universal principle. Therefore each individual part is in accordance with the entire system. Again, admitting merely the prevalence, not the universality of design in the creation, each part is either part of that design, or it is a defect in the design; because if it is of utility and not part of the design, the want of it is a defect; if contrary to the design or superfluous, it is also a defect. Thus, any part which does not appear to be included in the general design, is either a defect or a component part of which the use is unknown; the first is contrary to our belief, for it is opposed to the direct and incontrovertible evidence of reason; therefore the last is true, that is, each part, even to the minutest detail, is included in the design.

It is evident certain principles of construction and adaptation have been determined upon and are adhered to, and this in every separate part of the system. This is especially apparent in the animal fabric, where, even to the number of the bones, alterations have been made on the same type, instead (which would seem to have been a more ready method,) of adopting a different arrangement. The only reason to be assigned for this singularity is the determination to adhere to one fixed plan of construction.

SECTION IV.

Sleep is a suspension of the action of some of the organs of life and of the senses. The sight first ceases to act by the closing of the eyelids; the smell, taste, hearing, and the touch, then successively become dormant. It is a natural condition both of body and mind. Dreaming is natural to the mind—it is a mental action; dreams are the operations of mind during sleep*. Thus there are two natural states of body and mind, and two natural periods of mental action.

If it be supposed that there is some essential difference in the mental action in sleep, that supposition may be resolved into one of two cases* by assuming a difference of mental action only; and, supposing the mind to remain without any change in its elements, that its mode of action is altered. This alteration may be, first, a distinct method of mental operation, or, secondly, only a less extensive action. Reasoning from analogy, a certain and designed effect is to be expected in the operations of the mind during sleep, which must be proved to exist, if the first supposition is maintained; for in the operations of natural causes, a deviation from an established course of operation, an alteration in the usual mode of action of any causative power, is always found adapted to produce an effect for which a distinct cause would otherwise be necessary. Thus an alteration in the mode of action is in the place of another cause. It is not essentially another cause; for the elements remain unchanged, but a different mode is adopted in combining them, and an effect is produced for which an additional causative power is not required.

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* It cannot be imagined (but which is the only alternative) that the body is the receptacle of two minds; and that the mind in sleep is different to the mind of the waking state.

But if the operations of the mind in sleep (as in the second supposition,) can be reduced to fixed laws, by simply assuming an incomplete mental action as the only difference between the two states of mind, then the former supposition is evidently made improbable. In this case, the difference is supposed to arise from an incomplete action of existing causes; in the first supposition, from causes at that time only excited to action, but yet producing no effects which might not be the effects of causes which pre-existed. The first case is not analogous to the usual operations of nature; the second is not contrary to that analogy. Now, no sufficient reason can be given why the mental action should differ in sleep, and consequently it cannot be asserted that there exists any essential alteration in the mental action during that period.

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* It has been supposed by Dr. Cullen and others, that the state of dreaming is closely allied to madness, and that the mental action is similar in madness and sleep.

If it be admitted that the nature and operations of mind can be investigated, the laws of mental action in the waking state may be ascertained. To deny that the mind can investigate its own operations, is to reject as absurd all metaphysical inquiry; but granting this, the knowledge of the mental action in the waking state is assumed as being that mental action which is the most accurately known. Of all species of knowledge, it appears improbable that the nature of mind should be the farthest removed from our reach; it is contrary to all probability to suppose that the operations of the mind are not within its own powers of knowledge; that it is incapable of investigating the nature of its faculties, and their modes of action. Therefore, on the supposition of a known mental action in the waking state, and of an incomplete mental action during sleep, those operations may be investigated. In the waking state, the mental operations will be assumed to be complete; during sleep, incomplete. Therefore, in the same degree in which the mental operations in the waking state are known, and capable of being reduced to fixed laws, in the same degree may the operations of the mind in sleep be known; if the laws of the mental faculties are understood in the one state, they may be investigated in the other.

It will be assumed, that the difference of mental action in the sleeping and waking states of mind, is the absence, during sleep, of sensation. The sleeper neither sees, hears, nor exercises any of the senses. That the body is sometimes capable of receiving, and the mind of perceiving, sensations during sleep, is undoubtedly the case; but it is an exception, although of no unusual occurrence. In that condition of sleep which is the most natural, there is no sensation; therefore it is not unreasonable to assume, that sensation is not active in natural sleep. Various degrees of mental exclusion from the knowledge of the presence of external objects may be possible; and in the same proportion in which external objects are excluded from the mind during sleep by the absence of sensation, is the mental action confined to the internal mental operation. Consequently, an incomplete mental action commences whenever sensation becomes imperfect; and when it entirely ceases, the mind acts solely by the internal operation. The absence of sensation in sleep, the exclusion of external objects from mental perception, limits the action of the mind to its internal operations. Consequently, the action of the mind during sleep may be supposed incomplete in regard to the operations of sensation; but it is not necessarily incomplete in all the other mental operations, for sensation may not affect them; and therefore the mental action may be equally perfect in both states, in the performance of those operations which do take place. Thus the mental action of the two states may differ only in extent, not in perfection, of action. These two states of mind may be described as sensative and insensative; and every difference of mental action in those states will, from the assumption, proceed from the presence or absence of sensation. Therefore, whatever difference may arise in the mental operations of the two states, will depend on the influence which sensation has over the faculties of the mind which cause those operations. Thus the question to be considered is "the influence of sensation on the operations of the mind."

The primary operations of the mind are caused by sensation; for the presence of matter, and the mental perception of that matter, are necessary to the initial excitation of mind; these operations may then be continued by memory. Thus all mental operations which do not commence with an immediate sensation, commence with memory; consequently, every mental operation in sleep commences with a remembrance, and all ideas arising in the mind during sleep are ideas of memory. Memory can act independently of the influence of matter on the senses; for the memory may be excited to action without an immediate sensation; and thus ideas can be remembered both during the sensative and insensative states. Sensation is not necessary to the internal operations of the mind, and thus the inactivity of the external, does not prevent the internal mental operations from taking place.

The absence, during sleep, of sensation, although it does not prevent the internal operations of the mind, yet limits the extent of those operations. In the insensative state, no immediate ideas of sensation can cause mental action, as they do in the sensative state; and thus the internal operations of the mind during sleep are limited to pre-existent ideas.

The only method by which any knowledge can be obtained of the nature of mind, is by an investigation of its operations; those mental operations the results of which are known, though the causes of those results may for ever be involved in obscurity. The mind was evidently framed so as to produce a pre-determined method of action. If the operations of mind can be investigated, the causes of those operations, which are the faculties of the mind, may be assumed with great probability of truth. Not that the real nature of mind can thus be known; but an intermediate link is placed between the ultimate principles of mind, and the known result of mental action. Therefore, that which contains the essence of mind, may be assumed, and with great probability of truth; but can only be determined upon as accurately assumed, by its supplying a sufficient cause for the individual actions of the mind: the known operations can alone determine what is its structure; and even then, the essence of mind may be as unknown as ever.

It may reasonably be assumed, that no mental power exists, the exercise of which is not known by experience; and which, therefore, may be considered to be natural to the mind, and as if it were one of its faculties or elements.

The difference between the mental action of the two states, is an assumption which can be supported by facts. The operations of the mind in sleep may then be known, with the same degree of truth as the data of complete mental action, and the assumed difference of mental action in the two states.

CHAPTER III.

THE MENTAL ACTION IN THE SENSATIVE STATE.

THE nature of the mind can be ascertained only by its operations; but as these operations are known, they may be considered as the results of any causes apparently sufficient to produce them as their results: and if probable causes can be assigned for the mental action in the waking state, it may be then assumed, that the mind in sleep operates in a similar manner, but limited by the inactivity, or restrained action, of certain of the assumed causes of mental operation. Consequently, the operations of the mind in sleep may be determined; for their action will then be simply the difference between the perfect and unrestrained action of those assumed causes in the one state, and their limited action in the other. If the known operations of the mind in the waking state would necessarily result from the assumed causes, then there is every probability that the assumptions are correct: and if the results drawn from the assumed difference of the mental action in sleep coincide with the known peculiarities of dreams, then there is also a probability that the assumed difference of mental action during sleep is correct. If, in either case, the assumed causes ought necessarily to produce certain results, which results entirely agree with those remarked by experience, then are the assumptions as true as the nature of the case admits; and in proportion to the completeness of that coincidence between the theoretical and experimental, is the truth of the conclusion.

SECTION I.

The operations of the mind in the waking state, consist of two principal actions—an external, and an internal. The first connects the mind with the material world; the second is an internal operation on the previous action. The first is a mental apprehension of the properties of matter, consisting of sensation and perception; the second is a mental apprehension of the properties and actions of the mind itself, unconnected with any thing material: it consists of memory, comparison, abstraction, and combination. Thus, there is a material and an immaterial operation; the first caused by the senses excited to action by matter; the second solely mental, but yet an operation on the results of the material operation.

These mental operations will now be briefly described. But first is to be assumed, the existence, the conscious existence of the mind. Then secondly, the activity of mind,—for to suppose a mental existence without power of action, or without any exercise of that power, is to suppose it to have a useless existence: and also consciousness of that activity;—for it cannot reasonably be imagined that the mind should act, and yet remain in ignorance of its own action. Without this knowledge, the activity of the mind would be as useless as the existence of mind without consciousness of that existence. And thirdly, is to be assumed mental identity, with consciousness of that identity; for that mind can scarcely be supposed to think, which at no two moments is the same mind; or which, possessing identity, is moreover unconscious of that identity. Thus, the assumptions are—mental existence and activity, with consciousness of both; and mental identity, with consciousness of that identity.

SECTION II.

Let each mental process be considered*:

1st, External mental operation. This consists of simple mental apprehension, or sensation and perception. These are but one mental action: the first being the commencement, the second the termination of that action. Sensation is the impression of matter on the external senses; perception the mental consciousness of that impression. One cannot be said to exist without the other; perception is caused by sensation, and sensation cannot be known to exist without perception. Perception is the mental knowledge of an exercise of the external senses; it is the formation of an idea. Whenever there is perception, an idea is formed in the mind; the perception is the idea. Sensation, perception, and idea, are but imaginary periods of thought; that species of thought which arises from an immediate sensation, and is the cause of a primary idea. The absence of sensation and perception prevents the formation of new ideas of that species; and the mind can then only act on those ideas already formed, and which it has within itself; it can receive no fresh material on which to work. By sensation and perception new ideas are being constantly received into the mind: but when that fertile source of ideas is closed, the mind remains without any additional supply, and relies solely on memory for the material of thought.

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* It would, perhaps, be more correct to consider the mind in its operations at different times, as being in different states, not as exercising different faculties; but it appears more intelligible to adopt the latter supposition. The mind is, probably, in various states during thought; each state being a mental action, or an idea. Thus when the mind is said to be occupied with, or to have, an idea, it is an erroneous, though convenient, mode of expression. The idea is the mental action, or state of mind.

Ideas formed by sensation and perception, are those caused by the five senses: first, of vision. The ideas produced by this sense are more intense than those produced by the other senses; because, first, they give perception of magnitude, form, and colour; thus presenting an object to the mind in several points of thought at the same time; and causing ideas which differ in their nature, to be simultaneously produced in the mind by the operation of the same sensation; and secondly, because the sense of vision is more acute in its nature than the other senses. Light is the most rapid in motion of any substance, and impresses the sense of vision with an intensity far greater than the media by which the other senses are excited to action. Thus the sense of vision is the most acute, and the ideas produced by it the most vivid; they convey to the mind ideas of the greatest accuracy, and with almost inconceivable rapidity*.

Hearing appears to be, next to vision, the most acute in sensibility. Of the other senses, smell and taste seem to be intimately connected; and either of them, separately, appears imperfect. The impressions they make on the mind are much less vivid and distinct than those of the other senses. The ideas produced by the sensation of touch, when unaided by other senses, are much less accurate than those of either vision or hearing; but, perhaps, more so than sensations of smell and taste. The loss of one sense causes the others to be peculiarly acute: this arises from the greater use made of the remaining senses, and from an adaptation of nature, a species of *vix medicatrix*, which, by the closing of one inlet of ideas, by the abstraction of one cause of thought, increases, by concentration of mental action, the power of the other senses. The same mental power operates, when, by great attention, or by any other cause, unequal exercise of sensation takes place. For instance, this occurs in a very remarkable manner, when thinking of a prospect to which the eye has been well accustomed. In such a case as this, the mind can very readily picture to itself the remembered scene, when the sense of vision is unexercised—more strongly when hearing is prevented; and, probably, if neither touch, taste, nor smell, had the power to influence the mind by the creation of ideas, the utter absence of other sensations would cause this vision of the imagination to present a still stronger resemblance to reality. In like manner, the exclusion of vision and hearing would induce a more acute perception of the other senses, by the operation of the same cause—the concentration of mental action.

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* That which is seen is not the object of vision; not the distant body itself;—but the light which has impinged on the optic nerve, or the expansion of that nerve which forms the retina. This is evident; because the use of a lens may apparently either magnify or diminish, distort or discolour the object seen, which object yet remains unchanged. Since light is not instantaneous, it may be possible that the object we suppose we see may not actually exist: it may have been resolved into its elements, or it may have changed its locus, during the interval of time required for the transmission of the light from the object to the retina. Even the light from some remote star, may as yet not have reached its destination in this distant world. So immense is space, that it may be imagined even worlds might be created and again destroyed, ere the faint light of a far distant orb had travelled across that boundless region to the eye of an astronomer.

The next process of mental action to be considered, is the internal operation, which consists of memory, abstraction, comparison, and combination. Memory is the reviving of ideas in the mind; the re-production of ideas previously formed. By memory, the past becomes the present. Ideas innumerable arise in the mind, of which many are forgotten almost as soon as formed, while others defy the hand of time, and are deeply engraven in the remembrance. The duration of memory, and also the power the mind has to re-produce ideas more or less vivid, depend on the distinctness of the first mental impress,—of the mental action which formed that idea. By exerting attention, by detaining the ideas which pass through the mind, they are caused to make a deeper impression on the memory.

"Memory is, as it were, the store-house of our ideas; for, the narrow mind of man, not being capable of having many ideas under view and consideration at once, it was necessary to have a repository to lay up those ideas, which, at another time, it might have use of." * * * * "Ideas, indeed, are actually nowhere; but only there is an ability in the mind, when it will, to revive them again, and, as it were, paint them anew on itself, though some with more, some with less, difficulty; some more lively, and others more obscurely*."

Memory is voluntary and involuntary. The first is the desire to have as an idea present to the mind, one formed in past time. The second is caused by the activity of those operations of the mind which regulate the succession of ideas, and often determine the subjects of our thoughts. In involuntary memory, the ideas of the past arise in the mind unsought.

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* Locke.

Comparison is the observation of similarity and of dissimilarity in ideas; the perception of that in which two or more ideas are alike or unlike. All ideas are either partially or totally similar or dissimilar; and it is comparison which institutes investigation, and perceives similarities and dissimilarities. Ideas totally similar are identical; and ideas totally dissimilar have nothing admitting of comparison.

Abstraction is the taking away a part from any idea, and imagining it as if it had a separate existence. "It regards in things those parts only in which they agree, neglecting all those in which they differ, and thus takes away all foundation of difference, except in number*. The operation of abstraction is the conceiving as a separate idea, that which, by observation and comparison, is found to be a component part of one or more ideas. Thus, abstraction signifies a withdrawing some part of an idea from other parts of it; and by this means such abstracted parts become new ideas. The single idea, which was simple, is rendered complex. These ideas may, or may not, be ideas of any thing which has a necessary existence; that is, any thing peculiar or proper to body or mind.

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* ALDRICH.

Combination is the formation of one idea from many; the amalgamation and uniting into one of several ideas. Thus, by combination, a new idea can be formed from pre-existent ideas, recalled to the mind by memory, and operated on by this species of mental action. Thus it constructs ideas which never before existed in the mind; it forms them, for example, from the abstracted parts of other ideas; combining into one the parts abstracted, with or without any other new ideas.

SECTION III.

It will be necessary to consider more at length the nature of consciousness. Consciousness may be defined "the being endowed with the power of knowing one's own thoughts and actions." Thus every period of mental action, and every state and stage of the mental process, is a state of consciousness. Without consciousness, there would be no knowledge of mental existence and action on the part of the individual; it is a necessary element in the construction of mind. Consciousness is the knowledge of individual life, and appears to be a necessary quality of every mind; it is the knowing its own existence. Without consciousness and memory, neither men nor animals could know their own personal identity. Consciousness gives the knowledge of present action; the consciousness of sensation, is the consciousness of present sensation;

the consciousness of memory, is the consciousness of a present mental action—that of past ideas recalled in present time. The consciousness of memory is, therefore, a consciousness not only of the past, but also of the present; the united consciousness of both past and present. Every mental action has its own consciousness; thus there is the consciousness of sensation, memory, &c. Consciousness of sensation may exist simultaneously with that of memory; for a sensation may be perceived, and the past remembered at the same time. Thus a consciousness of both the external and internal mental operations may co-exist. Such a consciousness may be termed a complete consciousness; for it is the highest degree of consciousness: that of the external or internal only—an incomplete consciousness. Thus the consciousness of sensation, or of memory alone, is an incomplete consciousness.

Attention is the degree of the exercise of the mental faculties. It is a term of comparison, describing the degree of mental energy. A slight degree of mental exercise in the faculties of the mind, does not constitute attention.

"Let us imagine a castle which commands, from its elevation, an extensive view of a domain, rich with all the beauties of nature and art. It is night when we arrive at it. The next morning, our window-shutters open at the moment when the sun has just risen above the horizon, and close again the very moment after. Though the whole sweep of country was shewn to us but for an instant, we must have seen every object which it comprehends within the sphere of our vision. In a second or third instant, we could have received only the same impressions which we received at first, consequently, though the window had not been closed again, we should have continued to see but what we saw before. This first instant, however, though it unquestionably showed us all the scene, gave us no real knowledge of it; and, when the windows were closed again, there is not one of us who could have ventured to give even the slightest description of it;—a sufficient proof that we may have seen many objects, and yet have learned nothing.

"At length, the shutters are opened again, to remain open while the sun is above the horizon; and we see once more what we saw at first. Even now, however, if, in a sort of ecstasy, we were to continue to see at once, as in the first instant, all this multitude of different objects, we should know as little of them when the night arrived, as we knew when the window-shutters were closed again after the very moment of their opening*." Thus, it is not sufficient to see the whole view at once: to comprehend it in a momentary glance is insufficient; we must consider it in detail, and pass successively from one object of the scene to another. We look but at a point: this is the result of our organization, and hence the necessity of attention in the exercise of vision.

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* Condillac.

That which applies to this sense, applies to all the senses; and indeed the same laws of attention extend to all operations of mind. When the thoughts are concentrated on one subject, they are usually exercised to a more intense degree than at other times; and this produces attention. Excitement is also a cause of attention; for then, although the faculties *may* or may not be concentrated on one subject of thought, yet they are exercised to so great a degree as to produce the state of attention. Vividness of mental action is the greatest degree of attention; it is usually caused by the exercise of only one of the mental faculties; and this is to be anticipated; for it may be supposed that there is a certain mental *vis viva,* which may be employed on one or more faculties; when that power is concentrated on the action of only one faculty, its exercise must necessarily be the most energetic. Vividness of mental action throws into shade those faculties which are less engaged; the greater the attention, the more powerfully are the faculties in exercise employed: the faculties which the attention has not excited to so great a degree of action, are proportionally obscure and dull in their operation. Thus, a violent excitement of the observing faculties, causes a less degree of power to be exercised on the reflecting faculties; and when reflection is powerfully exercised, the observation is less on the alert: hence the abstraction of deep thinkers. It is almost impossible to reflect with undivided attention unless the senses are stopped, as much as may be, from external objects. Attention is a mental state, but not a process or combination of mental powers. "It is not the result of any peculiar power of the mind, but of those mere laws of perception by which the increased vividness of one sensation produces a corresponding faintness of others co-existing with it, as of that law of our emotions, by which they communicate greater intensity to every perception, or other feeling, with which they co-exist and harmonize*."

When many sensations co-exist, they are weaker and less distinct than when only one sensation causes mental action. If one of many sensations, simultaneously acting on the mind, were suddenly to become much more intense, the rest would fade in proportion, so as scarcely to be felt.

It may be regarded as a mental law, that when many sensations co-exist with equal intensity, the effect of the increased intensity of one is a diminished intensity of those which co-exist with it.

The following extract explains this effect very beautifully:—

"A thousand faint sounds murmur around us, which are instantly hushed by any loud noise. If, when we are looking at the glittering firmament of suns in a winter's night, any one of those distant orbs were to become as radiant as our own sun on its rising, it would quench, by its brilliancy, all those little glimmering lights, which would still shine on us, indeed, as before, but would shine on without being perceived*."

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* Dr. Brown.

SECTION IV.

The mental action is a continuous and progressive action. Certain operations always precede, others follow: each stage of the mental process occupies the same place with regard to the others; thus it may always be known what previous operations the mind has passed through to have arrived at any particular operation. Why one state of mind should always be followed by another, is a question which cannot be answered: it cannot be discovered, *à priori,* why one state of mind should be followed invariably by another. But experience shows that the mind has a uniform action, and the influence to be deduced is, that the mind is so constructed as to produce this regular system of mental action.

It has been shown that sensation is of necessity the initial operation of the mind. Every subsequent mental action commences either with sensation or memory; if with sensation, that sensation is immediate; if with memory, the idea may be either of sensation or reflection. If after an interval of time which has elapsed from the period of receiving any sensation, the mind remembers that sensation, the immediate process of thought commences with memory; and the only difference between it and a mental action continued immediately from a first sensation, is in the variation of the interval, the difference of time between the sensation and its remembrance. The same is the case with all other mental operations which commence without an immediate sensation. Thus, every mental action which does not commence with an immediate sensation, commences with memory. The internal operations of the mind require memory to enable them to act; the first idea of reflection must be always one of remembrance. Before any idea can be compared or combined with another idea, or suffer analyzation by abstraction, memory must of necessity be in activity. Mental action is momentary; thus, if the mental action remain unchanged, memory is the cause of that permanency. Memory always implies a previous mental action, whether or not that mental action immediately preceded the remembrance, or occurred after a long interval. Memory is essential to every mental operation except sensation, which precedes it; therefore every mental action except sensation is subsequent to an act of memory.

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* Dr. Brown.

Thus does the mind act by a uniform process; each operation having its own certain position in that series, although, from the rapidity of thought, this invariable order may often be imperceptible; and the mental action passing from one operation to another, eventually brings into activity, in its turn, every power required to perform a part in effecting the result. Cause and effect, in an invariable sequence, may be observed in every act of the mind. There is not more of organized system, nor is there a greater certainty in predicting the operations of system, in chemistry, than in any mental action.

The mind pauses longer on some than on other mental actions. Sometimes fewer ideas are reproduced by the memory, or there may be fewer similarities and dissimilarities in those ideas, and hence fewer points for comparison and contrast, or materials for abstraction and combination. This variation in the nature of ideas, causes corresponding variation in the ensuing mental action.

There cannot be more than one mental action in one period of time; the mind, when in action, is entirely occupied with the subject or idea which is the cause of that action. If this were not the case, confusion might arise, for the mind would be operating on two or more ideas at the same time, and the process of thought would become entangled and perplexed; neither is it necessary, for any mental purpose, that the mind should have such power. The entire mental action is directed solely to one subject or object of thought; it is wholly occupied by one idea. But it may be supposed that a degree of permanency is attached to the consciousness of each mental action, and although that action is but momentary, the impression may remain for that moment in the mind, and yet without interfering with the continued process of thought. Thus, in effect, two or more ideas may exist in the mind at the same time, although only one process of thought is carried on during any one period. The probability of such a mode of operation may be thus shown: there is always, during mental action, one idea which at the moment of thought is the one most distinct in the mind, more so than any other, although others may apparently be in the mind at the same time. This principal idea is the continuous and real action of the mind; the other ideas are impressions of the mental actions which have immediately preceded. This permanency is evidently distinct from memory, which it precedes; memory is a mental process, and the ideas it brings into the mind have previously existed, they cannot be new ideas. This permanency may be either of ideas of memory, or of ideas of immediate formation.

As sensation and memory may be exercised simultaneously, two distinct species of mental action may be carried on at the same period. Even two or more sensations may be in exercise at the same time,—but the mental attention can seldom be given to more than one internal mental operation. The voice may be heard, and the speaker seen at the same time, but the mind cannot well comprehend that which is said by more than one person. The mental action may be conceived to vibrate between its operations, to pass rapidly from one mental action to another, and thus apparently to carry on two trains of thought simultaneously. It would seem that the two elements of human nature, the material and immaterial, acted independently of each other by the external and internal operations, it being possible for both to act together, or either separately. It would follow from this, that sensations could be perceived, and yet the mind be incapable of reasoning upon them, that is, of exercising on those ideas the internal mental operations*.

Ideas reproduced in the mind by the power of memory may be compounded and decompounded in all the various ways by which the mental powers change the action of the mind, and such is the extent of this power, that the variety in the combinations of ideas is infinite. The external operations of the mind furnish an inexhaustible source of ideas, and these, by the internal action, are infinitely varied in combination, while the memory is a never-failing reserve of ideas, both of external and internal formation, which may again be subjected to the same mental process, and reappear as new ideas to undergo the endless routine of mental operation.

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* See Note A at the end of the volume.

SECTION V.

The mind is constituted so as to exist in certain states; one state being the immediate antecedent of the state which follows it. These, for greater clearness of description, have been considered as if so many faculties or members of the mind, each possessing separate qualities and powers. These states of mind have been considered with reference to one idea, one simple thought only, which has been supposed to pass through various processes by being analyzed, and compared, and combined with other ideas.

Another mental process remains to be considered; the ideas constituting one state of mind may cause the remembrance of another idea or ideas; and again, these ideas others, with great rapidity and often without any apparent reason. Our perception or remembrance of one object, excites, of itself, and without any known cause external to the mind, the conception of some other subject. This principle applies both to ideas of sensation and to ideas of reflection.

The term association, or suggestion, of ideas, has been employed to denote the tendency of mind, by which feelings that were formerly excited by an external cause, arise afterwards, in regular successions to each other, as it were spontaneously, or at least without the immediate presence of any known external cause. The influence of this principle extends to every species of thought of which the mind is susceptible. "Our internal joys, sorrows, and all the variety of our emotions, are capable of being revised in a certain degree by the mere influence of this principle, and of blending with the ideas or other feelings which awakened them, in the same manner as our conceptions of external things. These last, however, present the most striking and obvious examples of the influence of the principle*." We are aware that there is a tendency in ideas to suggest each other, without any renewed perception of the external objects which originally excited them, and that the suggestion is not altogether loose and indefinite, but that certain other ideas are related to them, perhaps imperceptibly, in associated trains of thought; and this principle extends to ideas not only of an intellectual nature, but also to those of the moral feelings and ideas of every species of thought.

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* Dr. Brown.

CHAPTER IV.

THE MENTAL OPERATIONS IN THE INSENSATIVE STATE.

SECTION I.

In examining the various peculiarities of the mental operations in sleep (those cases in which they present singularities and anomalies when compared to the mental action in the waking state,) it will be expedient to take, first, those peculiarities which affect the mental operations generally. The mind in sleep (from the assumed absence of sensation) depends on memory for the ideas which form its action. The internal mental operations are not altered by the absence of sensation, but the preexistent ideas operated upon, can only be supplied by memory. Memory may supply either ideas of sensation, or of reflection, and the first case, the remembrance of ideas of the external formation, will constitute the first series of the anomalous operations of mind during sleep.

The first peculiarity to be observed, and which has an influence on all the mental operations in sleep, is the apparent rapidity of thought in the insensative state. On this point it has been observed: "It is supposed that in dreams the rapidity of thought is greater than while we are awake; but there is no necessity to have recourse to such a supposition. The rapidity of thought is at all times such, that in the twinkling of an eye a crowd of ideas may pass before us, to which it would require a long discourse to give utterance; and transactions may be conceived which it would require days to realize.*"

But to this it may be said, that although in the sensative state the operations of thought may be as rapid as during sleep, they are not always so. In sleep, no variation takes place; the thoughts are then at all times equally rapid, because not interrupted by sensation. The activity of sensation, as it were, clogs the internal operations of the mind; hindering their action by diverting the attention from the subject-matter of their operations, and thus diminishing the rapidity of thought.

SECTION II.

The second general peculiarity to be observed in the mental operations during sleep, is the vividness of the scenes presented to the mind of the sleeper. Ideas of remembered sensations are more vivid than those which constitute thought in the sensative state. This peculiarity arises from the absence of sensation. In the sensative state, an infinite formation of ideas takes place, and the energy of the mind is thereby expended; but in sleep, though the mind is not more vigorous, yet its energy is more concentrated; for as there is then no sensation, the mental action is confined to the internal operations; and, unless it be supposed that the energies of the mind when concentrated are not more powerful than when diffused over a greater extent of mental action, the fewer the operations of thought, the more intense will be the power of thought. When the mind is occupied with a variety of subjects, it is never exercised with so much energy as when a single thought only engages the undivided attention. In the sensative state it is difficult to abstract the mind from surrounding objects and external things, and to fix it solely on an internal operation; but in sleep there is nothing to distract the attention; the mind is in its action less restrained, its ideas are more vivid, and continuous thoughts pass through the mind with greater rapidity, because there is no interruption from sensation, as in the waking state.

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* Dugald Stewart.

"As there is no state of the body in which our perceptive powers are so totally unemployed as in sleep, it is natural to think that the objects which we conceive or imagine must then make an impression on the mind, beyond comparison greater than anything of which we can have experience while awake*." Thus are ideas of sensation arising in the mind during sleep, more vivid than those remembered in the waking state.

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* Dugald Stewart.

SECTION III.

The third peculiarity (which relates solely to ideas of sensation,) is perhaps the most remarkable in the operations of the mind during sleep—it is the supposed reality of the objects and events which the memory brings before the mind.

The absence of sensation causes ideas of sensation remembered in sleep to appear to be ideas formed immediately from sensations occasioned by the presence of external objects affecting the senses. The ideas of sensible objects arising in the mind, appear to be the ideas of objects present, and not, which they are, ideas of memory. The mind, unconscious of its insensative state, mistakes memory for sensation, and imagination for reality. This supposed reality of the objects of sensation proceeds from the inability of the mind to distinguish ideas of memory from ideas of sensation. It is unable to compare, and consequently to perceive the difference between the two species of ideas—those of memory, and those of sensation. In the sensative state memory and sensation may co-exist; and therefore ideas both of sensation and of memory may be formed simultaneously. But in the insensative state, only ideas of memory can constitute the mental action. Thus, in the sensative state the mind can compare one species of idea with the other; but in the insensative state no such comparison can be made; there is nothing to constitute a comparison. In the sensative state the mind perceives the difference between the real objects before it, and their representation by memory, with the same degree of readiness that the eye distinguishes between the real objects before it, and their representation in a glass.

In the sensative state we are conscious of the existence of external objects present and not present; the credence of the first arising from sensation, that of the last from memory. In the insensative state, in the place of sensations, are only the ideas of those sensations. "The scenes which present themselves during sleep appear to be real. This happens because we have no other reality to oppose to the ideas which offer themselves; whereas, in the common fictions of the fancy, while we are awake there is always a set of real external objects striking some of our senses, and precluding a like mistake there; or if we become quite inattentive to external objects, the reverie does so far put on the nature of a dream as to produce a total loss of consciousness of time and place*."

This explains why imagined representations are not taken for realities in the waking state; but the absence of the possibility of comparison does not cause "the fictions of the fancy" to appear to be realities; and for this simple reason, that although the comparison prevents the two species of ideas from being confounded with each other, the absence of that comparison does not cause either species of

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[*] Hartley.

idea, separately, to assume the characteristic of the other. It is true that the absence of comparison between the two species of ideas, may cause ideas of memory arising in the mind during sleep, to be mistaken for ideas of sensation ;—but, the same cause may also produce a similar deception, when only ideas of sensation form the mental action. In that case, the ideas of immediate sensation should appear to be ideas of memory; for as there would be no ideas of memory with which to compare them, they might be mistaken for remembrances. The absence of comparison may cause a confusion—one species of idea may be mistaken for another; but the absence of comparison cannot cause one species of idea to be represented by another.

If the possibility of comparison determines the nature of the idea with precision, the want of that possibility does not necessarily cause the two species of ideas to be counterchanged. It may cause those ideas to be interchanged; but then an idea of memory might be recognised as an idea of memory, and not mistaken for an idea of sensation. Sometimes the idea might appear to be a remembrance; sometimes to be an immediate sensation. The mere absence of comparison leaves undetermined the species of the idea, but it would not invert the species.

The cause of this peculiarity may be thus explained. An idea remembered, is an idea reproduced as it was at first formed; it is the same idea; the mind is at the time of the remembrance in the same state as it was at the formation of that idea. The idea produced by the sensation of vision, is the idea of a reality; therefore, the remembrance of that idea is the remembrance of a reality. The idea when formed, caused a belief of the actual presence of the object seen; therefore, the remembrance of that idea causes a belief of the presence of the object remembered. In the sensative state, the remembrance of any visual object coexists with the sensation produced by objects actually present; and the mind then readily perceives the difference between the realities of sensation, and the memory of those realities; thus the sensation and the memory of the same object of sensation will not be as one idea, but as two ideas; consequently, a comparison between them is possible, and that comparison readily determines which is the reality, and which the remembrance: then one idea is perceived to be an idea of sensation, the other an idea of memory. But in sleep this comparison cannot be be made; therefore, the idea remains as produced by memory, unchecked by the comparison with sensation; that is, it is the idea of a reality. Therefore, the ideas of all objects of sight remembered in sleep are as ideas of immediate sensation, the ideas of objects actually present.

The mind, it has just been remarked, is in the same state at the remembrance as at the formation of an idea. Consequently, at the remembrance of an idea of sensation, the mind is in the same state as at the formation of that idea. Therefore, the media of sensation are in the same state; for it is the action of the medium of a sensation which causes the production of an idea of that sensation. Reflection is the action of the mind only; but sensation is the action, not only of the mind, but of an external medium. The first arises from within,—the last from without. Sensation is caused only by matter; reflection is not caused by matter. In reflection the mind is in a certain state caused by the mental state immediately preceding: the idea of reflection is consequent upon the ideas which form or suggest it. In sensation, the mind is in a certain state caused by the state immediately preceding; a state, not of the mind, but of the body. The material object, the medium of sensation, the act of sensation, and the mental perception of the sensation, (which last is the only step in the process of which we are truly conscious,) succeed each other; and, as it is supposed, the act of sensation is mediately caused by the vibration of the retina. Now, since the vibration of the retina is immediately followed by the idea of sight, since they coexist, one cannot be supposed possible without the other; therefore, when an object is perceived, the retina vibrates; therefore, in sleep, the remembrance of an idea of sight, causes a vibration of the retina. Since the idea is the same, whether it be formed or remembered; that is, since we see the object whether we receive a sensation or remember a sensation, and since the vibration of the retina is the cause of sight; it must be that the retina is equally caused to vibrate by matter and by mind; by the material object and by the immaterial thought.

Again, the belief in the presence of an object of sight in sleep, cannot be without cause. That belief is produced by some sufficient power: if the excitation of the retina in the sensative state causes a belief in the presence and reality of objects of sight, why may not the reflex series produce the same effect? why may not the idea excite the retina in the same manner (as to its effect) as the material object? If the excited retina is the cause of sight, it appears impossible that an idea of sight should exist in the mind, without a simultaneous excitation of the organ of sight. The object of sight is thought of because the retina vibrates; and being thought of, it is to the mind a reality.

If then sight requires a material medium in a certain condition, that medial state must subsist whenever the mind is conscious of the presence (be it real or not) of an external and material object. The brain may have this power, since it has the power of inducing motion. In either case, the nerves are acted upon. It is not contrary to its apparent nature and known powers, to assume that thoughts may influence the brain, and the retina be excited by such mental influence acting through the medium of the brain—and if this be possible, the results will be those which have been described.

If this series of cause and effect does not always occur, the reproduction in the mind of an idea of sensation must necessarily be caused by some other and unknown power, the existence of which has to be assumed as an additional mental element.

The same reasoning applies to hearing, and other sensations remembered in sleep. The organs of hearing are near the brain, and highly sensitive, but they are constructed for a medium of a denser nature than light, and the impressions consequently cannot be so vivid as those produced by that subtle medium.

The formation of an idea of vision by an external object is not instantaneous; but when the retina is excited by the brain, from a direct impulse of the mind, the sense of sight is immediately excited to action, and sensation is as instantaneous as the thought. In either case the thought and the excitation of the retina so immediately follow each other, that they may be assumed to coexist: but in one case, the object causing thought must be permanent for a time; in the other, the vision is immediate upon the thought.

It is most probably the case that light, rapid as it is in its movements, requires time to affect the retina so as to cause sight. This appears certain from the fact, that objects become invisible if moved with a certain degree of rapidity. Any object, to be clearly distinguished by the eye, must be impressed on the retina during a period of time not less than the one-eighth of a second. But when the retina is acted upon by the brain, no duration of action is necessary; there is no inertia of a material medium to be overcome; the effect is instantaneous.

The permanency of the impressions on the retina causes another singular difference in the mental action in sleep, from that in the insensative state. When the retina vibrates (if indeed that be the cause of sight*), the object seen remains upon the retina during an interval of time of about one-eighth of a second; and in this manner, by the rapid movement of the eye, an extensive prospect is seen as if by one act of vision, although but a single point is in reality seen at the same time. A similar effect is produced in sleep; each idea of vision, as it arises in the mind, becomes instantly materialised, and by its permanency remains on the retina, while the succeeding ideas add to the scene. Since thought is more rapid than successive periods of sight, that is, as thought is not limited to a speed of only one-sixth of a second, a train of ideas of vision may pass through the mind before the visual impression of the first idea has passed away from, or ceased to occupy the retina. Consequently, the second visual idea being materialised, before the retinal impression has been obliterated, that object of sight is superimposed on the former object; the second idea is formed upon the first. Then, as each visual idea forms its image on the retina and remains permanent, though but for a short time, all the ideas of vision arising in the mind during that interval of permanency, will also form their images on the retina. Thus each succeeding idea may add to the scene produced by the first, and when a representation is formed, it is remembered as one scene.

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* See Note B, at the end of the volume.

This permanency constitutes the fourth peculiarity, and produces very singular anomalies in the mental action during sleep. The permanency of the idea first arising in the mind, forms frequently the ground-work of the scene, and the succeeding ideas fill up the intervals; thus they all combine to produce a representation which is to the mind of the sleeper but as if one idea.

SECTION V.

The next peculiarity to be considered (the fifth) is one of a very singular nature. It has been shown that the mind can, by the action of memory, have presented to it during sleep a scene which to the sleeper possesses all the properties of a reality. The representations appear material, and the properties of a real scene attach to the immaterial; for ideas of immaterial sensation (if it may be so expressed) are formed by the scenes presented to the mental sight of the dreamer. The imagined view is seen, apparently, not by the action of the memory which pictured it to the mind, but as if by a peculiar mental sense of sight; and the various parts of the representation are looked upon, and new ideas formed from the fictitious scene, by an apparently internal optical sense.

When ideas of sensation are remembered, the reality they present to the mind of the sleeper is far more distinct than the representation memory could bring before the mind at any other time. Experience shows that the vividness of memory in picturing mental scenes, whether of persons, places, or events, during sleep, is greater than any similar effort of the memory in the sensative state. Ideas of sensation remembered in the insensative state, being as if the objects themselves, have the properties of those objects. They have the permanency of the material, not the instantaneity of the immaterial. These ideas are, therefore, altogether of a different nature to the ordinary ideas of memory; being ideas of remembrance they have, notwithstanding, the properties of ideas of instantaneous formation. Thus they have a double nature: they are strictly ideas of memory, for they have at a former time existed as ideas arising from a real and present sensation; and they are also ideas which, to the mind of the dreamer, are those of immediate formation. Therefore, possessing this twofold nature, they have in addition the properties, and produce the effects peculiar to each of these species of ideas; they are as if ideas instantly formed, and they are as if ideas previously formed. Ideas produced in the mind of the sleeper of objects of sight, as for instance, of scenery, a prospect, or a place well known and remembered, will give rise to ideas by suggestion, in the same manner as if the scene were real. The places we imagine we see, or in which we suppose we are, may be places we well remember; and our being there in the midst of localities familiar to us, perhaps in early youth, heightens greatly the supposed reality of these materialised ideas. Then the mind, having before it a scene as clearly depicted as if the objects themselves were the immediate cause of the ideas which represent them, is acted upon by the imagined scene as by a real prospect. Sensations of sight will then appear to be formed as in the sensative state; for these imagined scenes will produce ideas, as would the real scenes themselves. Thus immediate ideas of sensation may apparently arise from an imagined scene, in the same manner as if that scene were a reality. The remembrance of a view which will be as if real and actually seen, would excite in the mind an action similar to that excited by the real prospect when seen by day. Also, the primary idea suggests others. Then the permanency of the first idea of sensation forms the ground-work of a scene, and the ideas suggested by it are introduced into, and made to form part of that scene. Every idea of sensation arising in the mind, instantly becomes part of the representation; because, being materialised, it is identified with the existing scene. It would be contrary to the nature of vision to suppose the sight capable of seeing, and the mind of apprehending two distinct representations. We cannot form two separate and simultaneous scenes, even in imagination; for this reason,—ideas of sensation arising in the mind during a dream can form only one scene; but ideas of reflection, as they are not cognizable by the senses, pursue their own course unfettered by the remembered sensations.

SECTION VI.

The last three are the cause of the sixth peculiarity, which is the hypnitic representation, or combination of ideas. Persons, places, and events the most incongruous and impossible, may, during sleep, be brought into one scene. The apparent reality of the representations of the ideas of sensation remembered in sleep, their vividness and permanency, cause them to be retained in the mind; but the train of thought which gave rise to those ideas, and the representation they produced, pursues its own course, and idea succeeds idea in conformity with the laws of suggestion. The rapidity of thought, increased in the insensative state, hurries on this train of ideas; while those which first arose yet remain in the mind from their permanency. Thus the mind has two distinct sets of ideas, one forming the scene, the other arising in the mind under the guidance of suggestion. If the ideas suggested are ideas of vision, each idea, as it arises in the mind, becomes materialised, and forms a part of the hypnitic representation.

The hypnitic view is either constantly changing, or remains as if permanent, forming the stage and scenery for the drama of the dream. Hence the mind may have before it, in one scene, the products of many mental operations; and events differing in time of occurrence, and places, persons, and things, which could never be associated, are perceived by the mind at a single view, and as if they formed but one scene. It is possible much surprise may be occasioned, even in the midst of dreaming, by the strange collocation of persons and objects, and the stranger events which appear to take place;—but as they appear real, and as the events imagined to occur are as if actually occurring, the astonishment felt by the dreamer is the same which would be experienced in the waking state by the occurrence of some singular and unanticipated event.

It will be assumed that the ideas arising in the mind do not arise without subjection to some law; that ideas are not produced without cause, but succeed each other according to prescribed laws; that ideas are suggested in strict accordance to that uniformity and systematic order which has been assumed as the foundation of the argument advanced.

From the assumption of a similar mental action in each state, the ideas arising in the mind in sleep will be supposed subject to the same laws of suggestion which, in the sensative state, regulate the succession of thought. Consequently, the idea or ideas which formed the scenic representation may be supposed to cause, by suggestion, other ideas to arise in the mind; but, from the permanency of the first ideas, a scene remains before the internal vision. Then the mind has two trains of thought: one, the cause of the present scene; the other, ideas suggested by those first ideas. In the sensative state, a durability in the objects of sensation is required to excite sensation; this is especially the case with vision. But in the insensative state, when visual remembrance constitutes the mental action, the ideas are materialised instantly; the thought is the scene; no intermediate process is requisite. In the waking state, a certain period must elapse before the mind can apprehend the object of sight; the sense of sight must be acted upon, and the retina impressed with the visual image. This intermediate process occupies time; and an object which might be seen may be rendered invisible by the rapidity with which it is passed before the eye; by the shortness of the time its image remains upon the retina. But this is not the case in the insensative state. In sleep, the undivided mental action rivets the attention in a manner which cannot take place during the activity of sensation. The peculiar nature of sensation, its intense action, its absorbing energy, its great power, arising from the extended circle in which it has influence, affecting the mind simultaneously by the media of five senses, and lastly, the affinity between the passions and sensation; all these combine to render ideas of sensation far stronger in the vividness of their impressions, than the calm and gentle operations of reflection. The absence of sensation consequently increases the vividness of the ideas remembered, and the scenes called up by memory to the mind of the dreamer are, from the great attention they excite, possessed of a great degree of durability; and such representations are not evanescent, but remain before the mind's eye of the sleeper until other representations take their place. The scene changes rather than vanishes; and the change varies in rapidity. Sometimes very gradual alterations are observed; at others, scenes succeed each other with the speed of thought; for they are thoughts materialised, and their visual appearance is not limited in rapidity of formation, as in the sensation of sight.

The durability here mentioned is distinct from the permanency which has been shown to belong to ideas of the sense of sight; it is a durability occasioned by the great attention excited by the mental action. The operations of the mind are concentrated, and also those operations are by their nature calculated to induce a great degree of mental energy; these two causes produce a very powerful exercise of attention; and from this it is a consequence, that ideas formed under such conditions should have a certain durability independent of any other cause of durability by which they might be influenced.

The idea which memory first brought into the mind of the sleeper, and which commenced the scene, suggests other ideas, and ideas which are necessarily connected with those forming the imagined representation. In sleep, when the imagined scene has been formed, it instantly becomes the stage for the heterogeneous medley of actors who speedily make their appearance. Then the strangest collocation of persons and places usually ensues, and the mind, perceiving the absurdity of the scene and giving itself reasons why it is absurd, in vain seeks to discover a cause for the existence of those incongruities*.

The imaginary scene presented to the mind in sleep causes the same action of thought, and produces the same kind of mental operation, as a real scene presented to the mind in the waking state. The mental action, though rapid, has yet, from the cause already mentioned, a degree of permanency sufficient to cause the impression of a representation when once formed in the mind to remain, while other ideas fill up the scene with apparently sensible images. These also remain permanent for a short time, and during that interval these various representations form but one scene.

Notwithstanding the permanency of the ideas, it is but the scene of a moment, and yet (in consequence of our having in sleep little or no perception of time) it appears a lengthened duration. If the attention is more directed to one part of the supposed scene than to another, that part becomes more distinct than the rest; and if any object attracts but little attention after its production by the memory, it fades gradually away. The hypnitic prospect is still subject to the changes of the trains of thought which gave rise to its formation, and induce an incessant variety in the scenes represented. Every change in that which is represented may cause corresponding ideas to be produced by suggestion; and this gives rise to infinite variety in the mental representations, and consequently to perplexities and difficulties which affect the mind during the progress of the dream. The ideas of sensation suggested by a scene so imagined, like the previous ideas, appear to form part of it, and to arise out of it; and thus are connected, by the ordinary laws of suggestion alone, persons, places, and things, which have no necessary, nor even possible connexion. The scene changes, and the change varies in rapidity. Sometimes very gradual alterations are observed, at others the scenes succeed each other with great rapidity. These variations may depend on the ideas suggested, which may either add to the existing scene, or form a totally new representation. Sometimes the entire scene suddenly vanishes, and then re-appears as before, or only slightly altered; at other times not a vestige remains of the former scene, but a new one is laid in a different place; the actors are changed, and events, perhaps of a different nature, recall the attention of the sleeper to the representation of another dream.

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* It will be remembered that the reasoning powers of the mind may be in exercise; for they are not impeded in their operations by the absence of sensation.

In sleep the scene is presented to the mind with the same rapidity as thought, for it is thought; and thus the representation (but to the sleeper, reality) of all the principal events of a long life may be brought before the mind in a dream. The dreamer looks upon a reality; he beholds events, places, and persons, and is again an actor in the past events of his own life. And yet, with this seeming reality, the very memory which created the delusion may cause him to perceive that it is but a dream; for the same act of memory may cause the sleeper to recollect that the scenes represented had formerly happened. Sometimes the dream may be the exact representation of a past event, a recurrence of that past event, and which is presented by the memory to the insensative mind, perhaps, without any variation whatever. In such a case as this, the representation might appear to the sleeper to be not a new event, but the rehappening of the real event. The memory might very distinctly retain the remembrance of the real event; then the scene would be both past and present: it would appear to be a combination of the same persons and events, the same circumstances again forming the scene of the present mental action. Thus the double exercise of the memory would produce at the same time a fictitious scene, and the remembrance of a former real event.

"In sleep, we often dream that the scenes we behold are fictitious; that it is but a dream: the reason is sufficiently powerful to detect the anomalous action of the other mental powers; we dream that we dream: we are conscious of a very different state of mind from that of the waking state*."

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* Dugald Stewart.

If the attention is not concentrated solely on the dream-scene, the mind recognises its own remembrance; the passing scene is perceived as a second action, a recurrence, a repetition of former events; and this is the commencement of an ineffectual endeavour, by the reasoning mind, to satisfy these incongruities; to discover the cause of perplexity, and to terminate the annoying condition of mind caused by an unsatisfied desire to remember.

During sleep the trains of thought succeed each other in the same order as in the sensative state; the ideas of which they are composed suggesting other trains of thought, each idea of which is the subsequent to a former, and the antecedent to another to which it gives place.

SECTION VII.

The last four peculiarities of the mental action in sleep relate only to ideas of external formation, supplied by memory, and constituting the action of the mind in the insensative state. The sixth peculiarity relates to ideas of the internal formation only: it is the operation of the mind on ideas of reflection remembered during sleep, and causing mental action. Ideas of reflection arising in the mind in the waking state are not in any manner influenced by sensation. They require only the action of memory, which, reproducing ideas of past time, those ideas, and also immediate ideas, may be subjected, as previously described, to comparison, abstraction, and combination. Sensation has an indirect influence, however, on reflection; because its incessant activity draws away the attention of the mind from other mental actions. During sleep, as this cannot be the case, the mind is unfettered, and urges on the trains of thought which arise with a rapidity and energy which would be impossible in the waking state.

When ideas of reflection alone arise in the mind in the insensative state, and no other cognizable ideas have preceded, (as, for instance, when they arise at the moment of falling asleep,) the thoughts which pass through the mind will not appear to the sleeper in any way different from the ordinary operations of thought in the waking state, excepting that those ideas of reflection would pass through the mind more rapidly, for the reason before given. In this state of mind arguments may be carried on, and correct conclusions arrived at; and, possibly, there may be no limit to the extent and accuracy of thought: indeed, from the utter exclusion of anything which could distract the attention, the internal operations of the mind might be, and probably are, more accurate than at any other time.

Ideas of sensation may arise out of those of reflection.

A train of ideas of reflection may be supposed to pass through the mind, from which might arise, by suggestion, ideas of sensation. Under these circumstances if, by the ordinary laws of suggestion, an idea of sensation is remembered, it becomes immediately materialized; and, if not closely connected with the subject of thought, creates a discrepancy in the mental action, and produces confusion in the mind of the dreamer. This would be the case, to assume an example, if, in thinking of a mathematical theorem, the representation of the figure should be thought of, it would instantly appear present; and if the train of thought passed on to the other parts of the demonstration, the constant presence of the figure, then no longer connected with the train of thought, would seem perplexing to the dreamer, and he would be conscious of an effort to relieve his mind from an object which diverted his attention from the subject of his thoughts. If again, other figures, also unconnected with the prior object of reflection, were to be suggested by the first figure, the perplexity would be increased; the mind having apparently before it a confused mass of figures intruding themselves upon his mental vision, while he was earnestly striving to collect his thoughts, and to direct his attention solely to the mathematical theorem which at first occupied his attention. If a sensation of colour should be suggested to the mind the confusion would again be greatly increased; the figures would present themselves of various colours, perhaps also in motion; for the continuous appearance of new figures might produce a similitude to motion, and suggest the idea of movements of all kinds, directions, and velocities. This possibly would change the train of thought, or it might distract the mind of the dreamer, until at last he awoke. The same cause will produce dreams differing with every shade of thought, but yet arising from the same peculiarity of mental action.

Ideas of reflection may arise out of those of sensation.

For instance, a view remembered in sleep, a place known to the dreamer, may suggest the circumstances under which that place was seen, he would remember the friend who accompanied him, the conversation entered into, the subject of the discussion, the scenery, the antiquity of the buildings, and, perhaps, a mathematical argument, as in the preceding example, which then powerfully occupying the attention might cause the hypnitic representation to vanish, and leave to the mental operation the mathematical theorem only. This dream might then pass into the former case, and the figures remembered might suggest to the mind the same endless varieties of shape and motion.

Cases might be mentioned in which both species of ideas are involved and entwined in every possible kind of intricacy; but these are so complicated, that the consideration of them must be deferred.

SECTION VIII.

The next, and the eighth peculiarity, is the separation of the trains of thought. It has been shown that sensation and memory, the external and internal mental operations, may be in action simultaneously. Not that the mind really operates both by sensation and memory at the same instant; for the mind simply exists in different states, and consequently there is a unity in the mental action, the mind being only in one state at one period of time. But these states rapidly succeeding each other, the same effect is produced as if the action of various faculties were considered the cause of thought. As it can only be conjecture which determines the cause of that we know only as effects, it is of little consequence what theory is advanced on the subject; —any cause, apparently sufficient for the known effect, will afford an explanation, and analogy is the only criterion by which one mode of thought, or assumed cause, can be preferred to another assumed cause of thought.

The two species of ideas are so different in their nature, that they do not pass one into the other as trains of ideas of one species are constantly doing; they flow in channels so very different, that they always remain separated.

In sleep, when a train of ideas of sensation forms the mental action, and by any cause of suggestion an idea of reflection enters the mind, it will appear to arise out of one of the ideas of sensation: for not being assimilated to the train of sensative ideas, and yet being suggested directly or indirectly by one of them, it will be connected with, and appear to arise out of them; it will seem connected with the suggesting idea. It will be simply connected with, and not form a part of that idea, or enter into any combination so as to form a third idea: it will simply arise out of, and be connected with, the suggesting idea without interfering with the train of thought; it will, therefore, to the sleeper, be an idea connected with the train of thought, but yet distinct in its nature from that train of thought.

Thus when the representation of a passing event is the subject of a dream, and an idea of reflection is suggested by one of the actors in the scene, an idea, let it be supposed, (to revert to the former example,) of a mathematical theorem, which may be suggested by a person imagined to be seen, (in consequence of a former discussion on a similar subject, between the sleeper and the individual remembered,) will then appear to emanate from that person; and as an idea communicated between persons, as in the supposed case, from one to the other, is by word of mouth or sign, the idea will, to the dreamer, appear to arise in his mind by a direct communication from the person seen. This will be produced solely by the influence of habit. The dreamer sees a person before him; he receives an idea, the idea is connected with the figure seen, and, by habit, it is supposed to arise, or be caused by the ordinary process of speech. From a peculiarity in the memory of sensations during sleep, it frequently happens that the idea appears to be communicated to the sleeper from the "oneirophanos," or person represented, without the usual medium of speech: the dreamer receives an idea from a person supposed present, yet he receives it (as he imagines) without the intervention of sound*.

The effect of this peculiarity is to cause a delusion in the mind of the sleeper, by inducing him to suppose that some of the ideas which arise in his mind, by the ordinary laws of suggestion, are produced by causes external to his mind; that such ideas arise, not *ab intrâ,* but *ab extrâ.*

SECTION IX.

The next peculiarity to be noticed, the ninth, is the difference in the memory of sensations which takes place in sleep, from that in the sensative state. In the waking state, the senses always appear to produce the same uniform impressions; no variation is perceptible. An imperfect perception may be caused in many of the senses, as, for instance, in vision; by drowsiness, when the sight becomes defective; in touch, as by preventing circulation in the hand, when the sensation of touch presents singular anomalies. In the insensative state the memory presents discrepancies of a somewhat similar nature, causing very singular peculiarities. The ideas of memory are not always of uniform distinctness. It has been stated, that the distinctness with which ideas are remembered, depends upon the vividness of the first mental impression. This is especially the case with the memory of ideas of sensation. The memory of ideas of one sense is not equally distinct with the memory of those of another sense. Some sensations are remembered without difficulty, while the remembrance of others is always indistinct. The cause of this difference in the distinctness of the memory of sensations, arises from the nature of the sensations themselves.

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* The cause of this singularity will be explained in a subsequent chapter.

Now, in proportion as any circumstance has at the time of its occurrence excited mental action, so has it caused a greater or less degree of mental attention: also, in proportion as any circumstance has so caused a greater or less mental action and attention, so will it be more or less easily remembered. This applies not only to events, or rather to the ideas they produce in the mind, but also to all ideas whatsoever; for every idea is produced by mental action; and in proportion to the intensity of that action is the idea fixed in the mind. An idea which but slightly influenced the mind, may, by frequent remembrance, become impressed firmly on the memory. This arises from the greater degree of mental action expended by the constant remembrance; frequency, or the time expended in the several mental actions, being in this case equivalent to the intensity with which an idea may be indelibly impressed on the memory, by only one momentary action of the mind. This applies equally to every effort of the memory;—to the memory of sensations, of abstract ideas, and of events. The senses have each very different powers of producing mental action. Some senses cause more intense mental excitement than others, and consequently are more easily remembered. Sight is the most energetic of the senses; it causes the greatest degree of mental action. Sensations of sight are, consequently, more easily remembered than other sensations. It is easier to remember, and to represent to the imagination, the size, form, and colour of any object, than to remember the hardness or softness, the smoothness or roughness, of that object of sensation. The same principle rules the other senses.

We are sometimes alarmed in our dreams by supposed danger, and are conscious of making an exertion to save ourselves, but yet without success. At the moment of the anticipated danger, the terror is often so great as to awake us. For instance, it is no uncommon occurrence to dream of being pursued by wild beasts: we distinctly see their approach, and endeavour to escape by running away, or by climbing to some secure place: but every effort to move seems to be in vain; we are unable to exert ourselves. Usually no cause appears to prevent our escape; no object is seen to restrain the urgent attempts to save ourselves by flight from the pursuing animals; but yet every limb is paralyzed, every effort is in vain.

The cause of this peculiar state of mental action may be thus explained. The remembrance, and consequently the apparent reality, in sleep, of our ideas of touch, are not so vivid as those of vision. We see distinctly the objects of our terror, but the memory does not bring before the mind the idea of the sensation of touch, and consequently we cannot imagine the sensation of running or climbing, which would ensue upon that remembrance. The clearness with which the memory reproduces before the mind the ideas of past time, formed by the sensation of vision, causes those ideas of imagined vision to be peculiarly powerful; the contrary is the case with the sense of touch; thus the imagined sense of touch will be less clear and distinct than the imagined sense of vision; and when compared with it, as in the supposed scene, will, for that reason, produce confusion in the mind of the dreamer. In the waking state, the mind is accustomed to the usual and invariable distinctness of the different sensations; and no confusion arises in the mind, because each sense operates uniformly and without any apparent variation. In sleep, the remarkable clearness of visual imagination increased by the vividness and intensity of the mental action peculiar to that state, renders the scenes presented to the mind's eye of the dreamer to be apparently as real as if they were viewed in open day. But it is not so with the sense of touch. Thus one sense is in its action as if perfect; the other scarcely acts, or but imperfectly. The usual antecedent to vision, the object seen, excites sensation; the usual antecedent to touch, the ground which is trodden, or the weapon which is handled, causes no sensation. The dreamer is in the same condition as if during the waking state he has lost the sense of touch, but retains that of vision. He may anticipate a sensation, may imagine that one is about to be produced—if the antecedent or cause of sensation be supposed present, then the sensation will be expected to follow. If the idea of the expected sensation is not produced, it will then cause a perplexity in the mind of the dreamer; because the circumstances in which he is placed differ from those of the waking state in which he supposes himself to be, and to which he refers every idea as his accustomed standard. The thinking sleeper* supposes himself to be awake. Thus the dreamer, anticipating a sensation, and imagining that its corresponding idea is about to be produced, which is not produced, perceives a discordance in the mental action, as compared with that of the waking state; and also, since he possesses the capability of using the reflective powers of the mind, and is unable to discover a reason for the non-sequence of a sensation, that is, its idea, from the usual cause, (or that antecedent by which it is usually preceded,) he is still further puzzled by this contrariety of the mental action. In the supposed case, the knowledge of being unable to escape, and the deprivation of security consequent upon the inability to run, increases the original fear to so great a degree as not unfrequently to awake the sleeper. It is to be observed, that the reasoning and moral powers of the mind are active. The reasoning powers are in exercise, for the mind can discern the supposed danger, and the means of escape. Also, it can perceive the increase of danger, from the failure of security by flight. The moral powers are exercised in producing fear, caution is called into activity by the perception of danger. Thus the mystery of the dream is thrown solely upon the variation in the memory of the sensations; and the discrepancy of the mental action from that of the waking state, is simply in the difference of memory of the various sensations. This variation, in every case, arises from the memory not being uniform in the power it possesses of reproducing the ideas of sensation. A sensation accurately remembered, is to the dreamer as if it were an immediate sensation; one, for instance, caused by the effort of running or climbing; and, consequently, produces in the mind the corresponding idea. The remembrance is identical with the reality, and the dreamer would then suppose that he ran or climbed. But a sensation inaccurately remembered, causes the reasoning powers of the mind to perceive a dissimilarity between the then, and the usual operations of sensation; and the inability of the mind to satisfy itself, causes the perplexity which has been experienced in dreams of this nature. If the sleeper were conscious that the scenes passing before him were but a dream, the difficulties described would not occur, for then the mind would be enabled to give a reason for those discrepancies. An exception of this kind does sometimes occur, and the sleeper knows that he is not awake.

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* There are a few exceptions which will be mentioned in a subsequent chapter.

It is also to be remarked, that the will is exercised in dreaming. It is evidently so in this supposed case. The following extract confirms this opinion:—

"That the power of volition is not suspended during sleep, appears from the efforts which we are conscious of making while in that situation. We dream, for example, that we are in danger; and we attempt to call out for assistance. The attempt, indeed, is in general unsuccessful; and the sounds which we emit are feeble and indistinct; but this only confirms, or rather is a necessary consequence of the supposition that, in sleep, the connexion between the will and our voluntary operations is disturbed, or interrupted. The continuance of the power of volition is demonstrated by the effort, however ineffectual *."

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* DUGALD STEWART.

SECTION X.

From the same cause as the preceding arises the tenth peculiarity. The sensations of vision being easily remembered, while those of touch are remembered with difficulty; it will be a necessary consequence that an immediate change in the memory from ideas of the first, to those of the last, should render the ideas of touch almost, if not quite, imperceptible: consequently, when motion is supposed to take place in the sleeper, when he imagines he moves from place to place, the effect produced on his mind will be the same as if in the waking state he were to be completely benumbed; utterly to be deprived of the sensation of touch. His limbs will appear to have no power of motion, he will fancy he has lost the use of his limbs, and hence arises the terror of such dreams as the one mentioned in the last peculiarity. The desire of movement being nearly always associated with the imagined sight of the localities, the places from which and to which the sleeper wishes to move, brings into strong contrast the two sensations. Then a peculiarity results from these anomalies:—When the sleeper is passive, the mental operations are so similar to those of the sensative state that the mind is unconscious of any difference of mental action, and the delusion of reality is complete; but when the passive is changed for the active the delusion is no longer complete, perplexity arises immediately, the dreamer feels as if chained and immoveable: an unaccountable force restrains him, he imagines himself spell-bound. Dreams are usually representations. The sleeper is sometimes an actor in the dream. The position he most frequently holds is that of a spectator; he looks on, but does not move; or if he moves it is without bodily exertion; he is carried by all sorts of earthly or unearthly conveyances, but never by his own bodily exertions. The ease and rapidity with which the ideas flow on in the visual channel, and the check they experience when diverted out of that course by the sense of touch, prevents many ideas of sensation arising in the mind. Hence the activity and passivity of the imagined condition of the sleeper, that give rise to one of the most singular anomalies of the operations of mind in the insensative state.

From this peculiarity, in all probability, has arisen the supposition that during sleep the will is powerless. But it proves the existence of volition in sleep, and shows that it is only the non-sequence of ideas of motion, to those of desire to move, which causes this singularity.

SECTION XI.

THE eleventh peculiarity is the perception of time in sleep. In inquiring into the nature of the idea which the mind forms of time*, and analyzing it, the question to be considered will not be "what is the essence of time?" but "what does time appear to be, and how and when is that idea produced in the mind?"

The idea of time is not one of sensation, it cannot be conceived as an object of sense, it is therefore an idea formed by the internal process of the mind. It has been remarked, that in sleep we have no perception of the lapse of time; that the mind is incapable of perceiving duration. In examining this curious subject, an inquiry will first be made into the manner in which the idea of time is produced in the waking state. Having first determined what forms the idea of time when the mind is in its most perfectly active state, it will be more readily discovered in what manner, and under what circumstances, the formation of this idea can be altered or prevented.

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* "When I say that time, as far as we are capable of understanding it, is nothing more than a certain felt relation of certain conceptions of our mind, I am sufficiently aware of the necessity of this qualifying clause with respect to the limits of our understanding, and of the truth of the very striking remark of St. Augustine on this most obscure subject, that he knew well what time was till he was asked about it, and that then he knew nothing of it: 'Quid ergo est tempus! Quis hoc facile explicuerit? Si nemo a me quærat, scio; si quærenti explicare velim, nescio.'

"It is truly one of those subjects which, instead of growing clearer as we gaze upon it, grows more obscure beneath our very gaze."—Dr. BROWN.

Time is the measure of duration; it is the knowledge of the relation of events in sequence; it is the perception of succession. Time is to the operations of the mind, what space is to matter—it is the substratum of ideas. It has been curiously defined to be "an immaterial flowing extension*." It is divisible, for it implies duration, which cannot be imagined without supposing a beginning and an end. Time cannot be conceived abstracted from events; whatever it may be in itself, no idea can be formed of it but with reference to events. Time is to be thought of as a relation, not as a separate existence. The idea of time cannot be detached and imagined separately from the ideas of events, for it is an idea of the succession of events. Thus, the idea of time is always associated with that of events. The remembrance of an abstract idea gives no perception of time, but the act, or event, of having remembered it, forms a point of time. Time is divided into present, past, and future. Present time is not time in the sense of duration, for it is but an instant, the least conceivable portion of time; it is the bisector, the intermediate period between the past and future.

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* Gassendi.

Present time cannot be perceived without consciousness of present mental action. The idea of present time is that of a present event, of a momentary action, not of a duration. The perception of present time is the perception of the present action of the mind, but this is not time in the sense of duration. The perception of past time is consciousness of present action, with memory of past action. The idea of past time is that of a past event. So also with regard to future time, which cannot be imagined without reference to present and past time. The future is an idea of the imagination, and is dependant on memory for its constituent elements. The ideas of future time cannot be formed in the mind without a remembrance of the past, for an anticipated event is a mentefacture from materials of past occurrences: it is the experience of past time formed by the imagination into anticipated events of the future. The idea of one event or the ideas of several simultaneous events, can give no idea of time as duration. An event thought of as to the time of its occurrence, of necessity requires a comparison to be made between it and some other event, and the two events form limits to a duration or period of time. Consequently, two distinct ideas are necessary to the formation of the idea of duration. Thus the perception of present time, arises from the consciousness of present mental action only, and is therefore not time in the sense of duration. The perception of past time arises from the simultaneous existence in the mind of consciousness of present action, and memory of past action; and that of future time, from the united perceptions of present and past time combined with the imagination. From this it appears, that the perception of present time may exist in the mind without that of the past or future: that the knowledge of past time, presupposes that of the present, but may exist in the mind without perception of the future; and again, that the perception of future time presupposes that of both the present and the past, that is, of the past which presupposes the future. Consequently, it is the simultaneous perception of the present and the past, which produces in the mind the idea of time. These two perceptions together form the idea of duration or time, because they have to each other such a relation, that duration exists between them. An event might be imagined to have happened between the present and the past event, and this third event would divide the period between the two other events. It is this possibility of division which gives the perception of duration. Divisibility is essential to the idea of duration, and it is the knowledge of the succession of events, and of the order in which they occur, which produces in the mind the perception of time considered as duration. Therefore, to form in the mind a perception of duration, ideas of two events are requisite, one of which shall be a consciousness of present mental action, the other, memory of past mental action. Thus the present cannot be conceived with reference to duration without remembrance of the past, nor the past without consciousness of the present, nor the future but by the combined perception of past and present. The remembrance of one event only could not produce in the mind a perception of time, because divisibility would be impossible. Thus it is necessary the ideas of two events should co-exist in the mind, one of which is of a present, the other of a past event. If no perception of divisibility existed when these two ideas of events formed the action of the mind, no idea of duration would be produced, and consequently both would appear to be events of present time, that is, they would form but one event. Consciousness of present action, and memory of past action, are necessary to the idea of time, but take away the consciousness of the present action, and the memory of the past becomes the consciousness of the immediate action of memory, and consciousness of immediate action is that which constitutes the perception of the present, or of time not in the sense of duration. Consequently no idea of past time could be formed, and the idea of the past event would become an idea of a present event. The difference between the general idea which the mind forms of past time and of a past event, is simply in the number of ideas which, in the case of past time, obscure the memory of any one particular event as distinguished from the multitude, while in the case of one past event, the thoughts are directed solely to one idea, which is, for that reason, distinct. When past time is thought of, when past events are remembered, there is a tacit remembrance of all past events. It is tacit, because habit has involved the idea of time with every past event, and the memory is not concentrated on one idea. Having by habit formed in the imagination an idea of future time, that idea becomes then permanent in the mind, and when recalled by the memory to the present mental action is essentially an idea of memory, and is presented to the mind with the same clearness as the idea of a past time. From this the mind regards it not so much as an idea of the imagination as an idea similar to the other ideas of time, and the future, which never existed, becomes, from the ideas with which it is associated, as if it were a reality, or an idea of an event, though none ever happened. This is a peculiarity in the nature of the conceptions made by the mind of future time, and does not arise from any dissimilarity in the mental action, which is the same as at other times. Thus, the idea of future time is, from habit, regarded by the mind not so much as an idea of the imagination, as a reality.

Of our general notion of time it has been accurately remarked, "By habit we attach an idea of time to certain acts, these acts appear to us more or less rapid as they agree more or less with our imagined standard, that is, by memory we acquire ideas of the duration of events, and this duration appears rapid or not, when measured by the standard we have imagined*."

It appears from what has preceded, that the following conclusions may be arrived at with respect to the question of time: first, that when the mind perceives time as duration there is a consciousness of present mental action; secondly, that there must be an exercise of the memory; thirdly, that neither a consciousness of present mental action, nor a conscious exercise of memory, separately, can produce a perception of time; fourthly, that the coexistence of both these is always attended with an apprehension of time; fifthly, that the subject of the memory be an event; sixthly, that when one event is remembered, that event will appear as if in present time; for since there is no perception of duration, but yet a consciousness of present mental action, that action will be to the mind an immediate action; also the consciousness of an idea, that is, of a mental action, which idea is to the mind neither in past nor future time, must be as if an immediate mental action; for the mind cannot exclude the perception of time, when under the influence of those conditions which constitute that idea, and conversely. No event can be thought of which has not a relation of time, whether present, past, or future; seventhly, that the remembrance of two past events, and of those two only, will give a consciousness of present mental action, and of present time, but not of duration. They will seem to be events then happening; they will appear to be simultaneous; for one cannot be imagined as anterior to the other; and if neither can be perceived as antecedent or subsequent, they will appear to be contemporaneous, and as one event; but if, eighthly, with these two ideas the consciousness of a present mental action is combined, the two events are then referred to past time; or if one of them become as if a present mental action, then also the other will be as if in past time; for then a perception of duration will be formed in the mind; one past event will be as if occurring, the other as having already happened. The real priority of time in these two events will not regulate the order of their supposed eventuation; for the greater distinctness of one of them will alone suffice to detach the less distinct, and cast it into the remoter period. The mode in which the ideas are separated from each other, the cause of that separation, will depend on the various circumstances of the case; the nature of the event remembered; the ease or difficulty of remembrance; and the other causes of variation in memory already detailed. Also ideas suggested by one or both of these ideas may have an influence on the position in time of those two events. Thus of the ideas of two (or of several) events, one may be subsequenly disconnected by a less distinct mental action from the other, so as to become as if an event of past time, the other idea remaining as if an idea of present time; the same will be the case with any number of remembered events. Thus one past event will be remembered *as* a past event, while another past event will appear to be a present event. Ninth, when two or more past events are remembered, but without consciousness of the present, they will all appear in present time; and although, by reason of the exercise of memory, they may be to the mind distinct, and as separate events, unconnected with each other, they will yet appear as simultaneously occurring. Hence they will be as if the recurrence in present time of a past event—the mind may, or may be not, conscious that they are remembrances. Tenthly, the consciousness of sensation alone cannot give an idea of duration or time; for it is only the consciousness of present action, that is, of present time; the consciousness only of a moment, not of a duration. Neither can the action of memory alone give a perception of duration; for that also is but the consciousness of present mental action; but the united consciousness of both sensation and memory brings before the mind simultaneously the present and the past, and gives a perfect comprehension of time as duration; therefore, no perception of time in the sense of duration can exist in the mind without the simultaneous consciousness of present mental action, and past mental action; that is, without the coexistence of the two species of thought, viz.: sensation and memory.

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* *Encyclopædia Britannica.*

The exercise of sensation produces the consciousness of external objects present; of memory of sensations, that of objects not present. The concurrence of these two mental actions causes the mind to perceive distinctly the difference between real and imaginary objects. The subjects of sensation are perceived to be distinct in their nature from those of memory. The two species of ideas cannot then be mistaken the one for the other. The mind is conscious simultaneously of the objects of those mental actions, viz.: the object of sense and the subject of memory. When only sensation is in exercise, the mind is conscious of an exercise of sensation, and of its object; but the internal operations not taking place, the mental action is from the concentration very intense, and the attention exerted to the greatest degree. Thus it is that we sometimes forget in the excitement of the moment, from the intense exercise of sensation and the consequent dull action of memory, the relations of time and place. When only memory is in exercise, the mind is *not* conscious of an exercise of memory, but only of its subject; and the external operation not taking place, the mental action is concentrated on the memory, which is consequently unusually vivid. Since no comparison is made between the ideas of reality and non-reality, the ideas of sensation appear to be material objects and present. If the idea of memory be that of an event, then is that event one of present time; it is then occurring; it is a present action. Consequently, in sleep the remembrance of an event will, from the action of memory only, be to the sleeper a passing event, an event actually occurring. The necessity of the memory of ideas of sensation, whether of persons, objects, or events, being to the dreamer realities, may be thus proved. First, of events. Consciousness of mental action is consciousness of present mental action; that is, of time present, or of time not in the sense of duration; consequently, consciousness of sensation, or of memory singly, is consciousness of present time. The consciousness of memory is that of a past event; therefore memory alone gives a perception of present time; that is, a past appears to be a present event. So also of the memory of places during the absence of sensation; for the act of seeing any place is an event; and so again of persons. Thus all ideas of sensation in an insensative state must appear realities, because the consciousness of one mental action only, gives no perception of duration; but yet a consciousness of present action, that is, of present time.

CHAPTER V.

THE PERIOD OF TRANSITION.

SECTION I.

THE assumption of an insensative state during sleep, would necessarily produce the variations of mental action which have been described. But another and still more peculiar mental action would be caused by an intermediate state between a perfect action of the senses, and the total absence of all sensation; a state of imperfect or partial sensation. The assumption of only two conditions of mind would require that sleep should be sudden; that no gradation of sensation should take place. But this is contrary to experience; neither is it in the least necessary to the argument, that a gradual change from one to the other should not take place. The two distinct states exist, and this is all that has been assumed. But if, in addition to this, an intermediate state be assumed to exist, the consequence will be, that a gradual change will take place in the mental action. As the senses lose their power, so will the peculiarities of sleep present themselves; in the same degree* in which the mind passes from a sensative to an insensative state, will the mental action vary from the perfect action of the waking state, to the imperfect action of the insensative state; and also, in the same degree will the peculiarities incident to the latter state gradually expand. The transition from one state to the other might be supposed, *à priori*, to be subservient to some law; that a variation of circumstances might cause a corresponding variation in the mode of transition, and consequently variations in the ensuing peculiarities. Some of the senses, it might be supposed, are more easily excluded from the impressions made by surrounding objects than others; also one sense may become gradually inactive, whilst another is suddenly shut up, and becomes as it were extinct. The circumstances of any one period of transition may be different from those of another. The mind is unavoidably in different conditions at different periods, from the variety of the trains of thought which constitute its action.

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* The activity of one sense only will suffice to constitute a sensative state.

These supposed varieties in the nature of the senses, and the differing mental circumstances at the period of transition, will suffice to vary very greatly the conditions under which thought takes place in the insensative, or semi-insensative states. The conditions under which thought commences at the period of transition, will determine the nature of the thought in the insensative state, if, indeed, the mind acts in that state. It has been tacitly implied hitherto, that the insensative state is the time of dreaming, but it is not necessary to assume this.

It is possible to dream in the shortest interval of time; and consequently all dreams may be but the mental operations of a very minute portion of time. There seems every reason to conclude that this is the fact; and indeed it has been most clearly proved by Lord Brougham, in his *Discourse on Natural Theology*. From this fact arises the possibility of the period of transition from the sensative to the insensative state, being the time, and perhaps the only time, in which dreaming takes place; that dreaming is a mental action, in a state which is neither sensative nor insensative.

"There seems every reason to conclude that we dream only during the instant of transition into and out of sleep, but yet that instant is quite enough to account for the whole of what appears a night's dream. It is quite certain we remember no more than ought, according to these experiments, to fill an instant of time; and there can be no reason why we should only recollect this one portion if we had dreamt much more; the fact that we never dream so much as when our rest is frequently broken, proves the same proposition almost to demonstration. An uneasy and restless night passed in bed, is always a night studded full with dreams. So, too, a night passed on the road in travelling, by such as sleep well in a carriage, is a night of constant dreams; every jolt that awakens or half-awakens us, seems to be the cause of a dream. It may be said that we always, or generally dream when asleep, but only recollect a portion of our dream; then the question arises, why we recollect a dream each time we fall asleep or are awakened, and no more? If we can recall twenty dreams in a night of interrupted sleep, how is it we can only recall one or two when our sleep is continued? The length of time occupied by the dream we recollect, is the only reason that can be given for our forgetting the rest; but this reason fails, if each time we are roused we remember separate dreams."

The rapidity of the trains of thought in sleep can be ascertained by experiment.

"Let any one who is extremely overpowered with drowsiness, as after sitting up all night, and sleeping none the next day, lie down and begin to dictate; he will find himself falling asleep after uttering a few words, and he will be awakened by the person who writes repeating the last word, to show he has written the whole; not above five or six seconds may elapse, and the sleeper will find it at first quite impossible to believe he has not been asleep for hours, and will chide the amanuensis for having fallen asleep over his work; so great, apparently, will be the length of the dream he has dreamt, extending through half a life-time. This experiment is easily tried; again and again the sleeper will find his endless dream renewed; and he will be always able to tell in how short a time he must have performed it; for suppose eight or ten seconds required to write the four or five words dictated, sleep could hardly begin in less than four or five seconds after the effort of pronouncing the sentence; so that, at the utmost, not more than four or five seconds can have been spent in sleep. But, indeed, the greater probability is that not above a single second can have been so passed; for a writer will easily finish two words in a second; and suppose he has to write four, and half the time is consumed in falling asleep, one second only is the duration of the dream, which yet seems to last for years; so numerous are the images that compose it."

The mental action during this semi-sensative state will be curiously complex. If the senses gradually lose their power of action, then will the peculiarities described be gradually unfolded. But if, as can be shown to be the case, the senses vary as to the time of their extinction, then one sense may be almost at its full vigour, while another has in effect ceased to exist. Thus some of the peculiarities of insensation will co-exist with the perfect action of the other senses. Again, some of the senses (it is possible) might be easily roused during sleep, and thus intrude themselves into the insensative, or semi-insensative mental operations; and the incessant variations of mental action, each producing its own peculiar effect, would cause these mental operations to be excessively complex. The immediate ideas of sensation produced by the senses still in activity, would be combined with the trains of ideas forming the hypnitic scene, or with ideas of reflection on which they would then supervene. Ideas formed immediately from the yet active senses will, by comparison with ideas of memory of the same sense, appear clear and distinct; while the remembrances of the same sensation will appear obscure and perplexing. All these curious anomalies of mental action co-existing, and by suggestion co-acting, render the operations of the dreaming mind, in this peculiar state, extremely difficult of analysis. The singular manner in which immediate sensations are combined with the sleeping thoughts, has been demonstrated in a passage in the work just quoted; and it is very remarkable how quickly the course of thought is moulded to suit any external impression made on the senses. It is a singular proof of the rapidity of thought, and especially of its extreme velocity during sleep.

"The bodily functions are in part suspended during sleep; they, however, retain a portion of their acuteness; and those of touch and hearing especially may be affected without awakening the sleeper. The consequence of the cessation which takes place of all communication of ideas through the senses is, that the action of the mind, and above all of those powers connected with the imagination, becomes much more vigorous and uninterrupted. This is shown in two ways: first, by the celerity with which any impression upon the senses, strong enough to be perceived without awaking, is caught up and made the groundwork of a new train of ideas; the mind instantly accommodating itself to the suggestions of the impressions, and making all its thoughts chime in with that; and secondly, by the prodigiously long succession of images that pass through the mind with perfect distinctness and liveliness, in an instant of time.

"The facts upon this subject are numerous, and of undeniable certainty, because of daily occurrence. Every one knows the effect of a bottle of hot water applied during sleep to the soles of the feet; you instantly dream of walking over mould, or ashes, or a stream of lava, or having your feet burnt by coming too near the fire. But the effect of falling asleep in a stream of cold air, as in an open carriage, varies this experiment in a very interesting, and indeed instructive manner. You will, instantly the wind begins to blow, dream of being upon some exposed point, and anxious for shelter, but unable to reach it; then you are on the deck of a ship, suffering from the gale; you run away behind a sail for shelter; the wind changes, so that it still blows upon you; you are driven to the cabin, but the ladder is removed, or the door locked. Presently you are on shore, in a house with all the windows open, and endeavour to shut them in vain; or, seeing a smith's forge, you are attracted by the fire, when suddenly a hundred bellows play upon it, and extinguish it in an instant, but fill the whole smithy with their blast, till you are as cold as on the road. If you from time to time awake, the moment you fall asleep again, the same course of dreaming succeeds in the greatest variety of changes that can be rung on our thoughts. Another experiment is still more striking.

"A puncture made, will produce a long dream, which seems to terminate in some such accident as that the sleeper has been wandering through a wood, and received a severe wound from a spear, or the tooth of a wild animal, which at the same instant awakens him.

"A gun fired in one instance during the alarm of invasion, made a military man at once dream the enemy had landed, so that he ran to his post, and repairing to the scene of action, was present when the first discharge took place, which also at the same moment had awakened him.

"Now these facts show the infinite rapidity of thought; for the puncture, and the discharge of the gun took place in an instant, and their impression on the senses was as instantaneous; and yet during that instant the mind went through a long operation of fancy, suggested by the first part of the impression, and terminated, as the sleep itself was, by the continuation; the last portion of the same impression.

"Mark what was done in an instant—a mere point of time. The sensation of the pain or noise beginning, is conveyed to the mind, and sets it thinking of many things connected with such sensations. But that sensation is lost or forgotten for a portion of the short instant during which the impression lasts; for the conclusion of the same impression gives rise to a new set of ideas. The walk in the wood, and the hurrying to the post, are suggested by the sensation beginning; then follow many things unconnected with that sensation, except that they grow out of it; and lastly comes the wound and the broadside, suggested by the continuance of the sensation; while, all the time, this continuance has been producing an effect on the mind wholly different from the train of ideas the dream consists of; nay, destructive of that train: namely, the effect of rousing from the state of sleep, and restoring dominion over the body. Nay, there may be said to be a third operation of the mind going on at the same time with these two; a looking forward to the *dénouement* of the plot; for the fancy is all along so contriving to fit, as that, by terminating in some event, the result may be consistent with the impression made on the senses, and which has given rise to the whole train of ideas."

SECTION II.

A CURIOUS question may now be asked. Does the mind always think? It is not necessary for the explanation of the dreaming state, to assume the mind to be at all times active, and to suppose that it thinks during profound sleep; for it is possible, as just proved, that there might be an interval, however short, during which the mind is neither in a sensative nor insensative state, but in a condition of transition, and that during such period dreaming could take place. This being the case, the phenomena of dreaming may be limited to that interval. If the mind were inactive in sleep, and passed immediately from the sensative to the insensative state, there could be no possibility of dreaming. If dreaming is possible during the interval of transition, it is unnecessary to assume the mind to be active in profound, in true sleep.

The memory seldom retains the thoughts of sleep; often not a vestige remains on the return to the sensative state, to show if or not the mind has been active during the hours of rest. It might be that we dream in deep sleep, and yet, from the rapidity and multitude of ideas hurried before the inattentive mind, be unable to remember or retrace them the moment after. But it has been proved, in the foregoing extract, that this is very improbable. A similar case sometimes occurs in the sensative state, when the mind is listless and weary; but this is but an unsatisfactory reason, if others cannot be given. It is clear that no direct evidence can be produced to show the continuous activity of mind in a state absolutely insensative. Other reasons may be given why it is probable the mind does not always think during profound sleep. The mind, as part of a great design—as a contrivance intended to produce a certain effect—may be likened to mechanism, to a machine,—now to work that machine without producing any required effect, is to exhaust and to wear it out. It is not necessary the mind should think during sleep, for thought is not then required to direct the action of the body, nor to instigate the body to particular movements; the dictates of the mind are not necessary to cause intellectual or moral decisions*. Why then should the mind think during sleep? If in the transition state, dreaming can take place to so great an extent as to give a sufficient time for any dream,—if it affords a locus extensive enough for the insensative mental action, then nothing remains to be explained to which the assumption of incessant mental action is requisite. If it be objected, that the mind not thinking is non-existing, it must be proved that the mind cannot exist without action. If the mind is known only by its action, it is not a consequence that mental inactivity is equivalent to mental annihilation.

If it can be shown that the mind may be reasonably supposed to have the power of action, and of then ceasing from action, and of again returning to an active state, the probability of the truth lies with the possibility of inaction. To revert to the material comparison, and to instance in a clock. In a clock, the mechanism of that which strikes the hours does not continue to move with that which marks the time; but the latter puts the former into motion previously to its striking. The reason is evident; such motion would be unnecessary until the moment for striking. Now if the hand of a by-stander were supposed to be placed on the wheels of the clock, and that by gradual pressure its motion was stopped; and that after an interval the hand was gradually removed, the movements of the clock would recommence at the point at which they ceased. There would have been motion, a gradual, a total cessation of motion; then a gradual, lastly, an unrestrained motion; but no other necessary effects whatever. Thus may the mind be assumed to act gradually, to cease from action, and then as gradually to resume that action, until in the same vigorous and complete activity as at first. The mind, on this supposition, would resume its action under precisely the same circumstances as those under which that action ceased. Nothing could intervene to produce any deviation from the course of thought; the train of ideas which constituted the mental action at the moment when all thought ceased, is resumed at the same point; it is recommenced where it ceased, and nothing having interposed to add to or diminish from—to alter or destroy the ideas constituting the mental action, it must therefore continue as if no interruption had taken place. The mental action ceased under certain conditions,—it recommences under certain conditions; no cause of mental action exists in the interval; therefore, if no effect can arise where there has been no cause, that mental action must continue unaltered.

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* The reason before given, that "dreaming is a design of nature intended to cause pleasure," is not interfered with by this conclusion; for it is only the act of dreaming, not the incessant mental activity during sleep, which is supposed to produce this pleasure. We dream, whatever the conditions may be under which that phenomenon takes place.

An argument may be drawn from the necessity of rest. A machine must be repaired when worn out; but the body and mind are recruited by rest, and thus enabled to endure for many years; while, without this constantly recruiting power, they could scarcely last many days; both body and mind require rest. The wearied body is rested by cessation from action, and partially by change of action. The exhausted mind is relieved also by change of action; but it requires a total absence of all thought, if this be possible, to procure perfect rest. The body may be in a state of repose in sleep, when the mind is dreaming; and the mind may be gently exercised in unlaborious thought, the body meanwhile undergoing severe toil: thus one may receive partial rest, while the other is fully employed. But perfect, absolute rest, would require a total cessation of motion and of thought.

If the mind can dream during the state of transition, it is unnecessary to suppose the mind active during profound sleep; for by this assumption the phenomena of dreaming may be explained, the mind being supposed to act only when the results of its activity are susceptible of investigation. Thus, it appears, there is good reason to suppose that the mind may be totally inactive during profound sleep, and that we dream chiefly, if not only, during the interval between the sensative and insensative states, the period of transition into and out of sleep. But since it is not impossible, but (from its inutility) only improbable, that the mind is active, and its operations continued into the perfectly insensative state, the mind may think during the deepest sleep.

Thus it may be concluded: first, that the period of dreaming is nearly always in a semi-sensative state; secondly, that dreaming *may* occur in profound sleep; and, thirdly, that it cannot be asserted that the mind is always in a state of activity, and that, as an assumption, it is quite unnecessary to explain the phenomena of dreams.

Chapter VI.

THE OPERATIONS OF MIND IN THE INSENSATIVE STATE—CONTINUED.

SECTION I.

The origin, the cause of thought, is, at any time, a difficulty, and much more so during the operation of dreaming than in the waking state. It is rather an impossibility than a difficulty; for can it be discovered how mind acts on mind, or how it is influenced by matter? Why this should be possible is an easier question. If we regard the mind as a part of a great design, other parts of which are known, we may clearly distinguish the necessity of its possessing the qualities we, by experience, know it to possess. If the investigation of the origin of thought in the sensative state, is a difficulty, in the insensative state, the difficulty is much greater.

"If the exciting causes of our dreams seem mysterious and inscrutable, is not the fact the same with the origin of every idea or thought which spontaneously solicits our notice? The only difference is, that, in the latter instance, in consequence of long and constant familiarity, they are surveyed by all with little wonder, and by most with hardly any attention. In the former instance, they rouse the curiosity of the most illiterate, from their comparative infrequency, and from the contrast which, in some respects, they present to the results of our habitual experience*."

The involuntary nature of thought, and the little control of the will over the succession of ideas passing through the mind, have been remarked by many writers. The mind is completely subjected to physical laws in the succession of its ideas. It has been observed by Lord Kaimes and others, that we cannot by an effort of our will call up any one idea, and that the succession of our ideas depends on causes which operate in a manner inexplicable by us. It is obvious to an observer of his own mind, that a great proportion of his thoughts are unsought or involuntary. Objects of sensation, even the most minute and trivial, are perpetually exciting new ideas; and so multiplied and diversified are the associations to which they give rise, that it is impossible to predict into what train of thought any circumstance may lead us. And not only do outward objects or incidents excite different thoughts in different minds, and in the same mind at different times, but the subsequent thoughts suggested by preceding thoughts, and not by anything externally perceived, are productive of others in a series which none can foresee. As we cannot trace our thoughts to their commencement, we cannot tell what was the initial idea which induced any particular train of thought. Neither, if that were possible, could we by willing only, reproduce that primary idea. We cannot recall any idea to the mind without an exercise of memory, which requires effort, and a peculiar mental action for the express purpose. Neither can we exclude any idea from the mind, or determine that memory shall not act, and that no ideas shall be remembered. We cannot will to recall to the mind an idea previously formed, for this would be to know the idea we wish to remember, to know that of which we are ignorant. We hunt for the idea*, we seek it among others, as if for a person we cannot describe, though we should recognise him when seen. Neither can we by any effort prevent ideas from forcing themselves into the mind; for, however great that effort, neither intellectual nor moral, agreeable or painful, remembrances, can be avoided. Thus the desire to remember, and the desire to forget, are alike very limited in their power. We cannot call up an idea by which the lost one can be recovered, for that would be to will to remember the intermediate idea; but we can, by exciting suggestion, give rise to thoughts which are in some way connected with the idea to be remembered; and this state continuing by the mental action being concentrated, which is the state of attention, the idea may at length be produced. The concentration of thought excites the greatest mental activity; and the ideas which constitute the mental action are held in the mind, are retained instead of passing rapidly away. Thus the mental action is, as it were, forced into the direction of the forgotten ideas. The ideas suggested, are suggested solely by those already constituting the mental action; and consequently all the ideas in any manner connected with them, may be supposed eventually to arise in the mind. All ideas must be formed by the external or internal operation; during sleep they can only be produced by memory, or formed from the remembered ideas. Thus, in sleep, ideas of sensation must be suggested, because they cannot be formed: ideas of reflection may be suggested, or they may be formed. But the ideas from which those of reflection are formed, must be themselves either formed or suggested, and those again in some point of the series suggested; thus all ideas in sleep must arise from suggestion, in the first instance. Therefore, when there is a desire to remember any idea, the idea which caused that desire to remember, must itself have been suggested, and that which suggested it may also suggest the idea to be remembered, for some link of connection must necessarily subsist between them. Thus it is impossible we should have immediate control over the trains of thought passing through the mind. This applies equally to ideas both of external and internal formation. An idea of sensation cannot be prevented from entering the mind when that which has the power of causing the particular sensation is acting on the organs of sensation. Nor can a co-location of ideas be prevented from producing a comparison in the mind; and so of any other mental action. Consequently, we have immediately neither preventive nor directive power over our thoughts, by any voluntary effort of mind.

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* Dugald Stewart.

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* We hunt (*θηρευομεν*) for the thought as for a wild beast.—ARISTOTLE.

The will has been thus defined by Locke:—"The will is the power which the mind has to order the consideration of any idea, or the forbearing to consider it." And by Johnson, "That power by which we desire and purpose." To will to consider any particular idea, implies a previous knowledge of that which is willed, and also the power of retaining that idea in the mind, and consequently of preventing the admission of any other. Thus the definition implies a power of rejection to the admission of any but the idea willed. But how, it may be asked, can the mind prevent the admission, any more than the continuance of an idea? For, in mental action, the idea present in the mind must continue, or a new idea be brought into the mind: but this last has been shown to be impossible by any voluntary act of mind. Neither can the mind reject an idea when any competent power of formation or suggestion excites a corresponding mental action. Thus the will, as a distinct faculty, is powerless. The mental action, and the desire of that action, co-existing, constitute the will, which is simply the mental action of the moment. But this subject requires more consideration.

When only a single train of thought occupies the attention of the mind, idea succeeds idea in a continued course without interruption; then thought appears to require no effort. If one idea of the train suggests another set of ideas, then there is a conflict between the two trains of thought; the attention is divided between them, and the mental action passes rapidly from one to the other. These ideas may suggest others associated with them, until at last the mental action becomes so subdivided, and, by the absence of attention, so confused, that eventually the connecting links of ideas become broken, and the thoughts pass into other channels. In the first case, that of a continuous thought, we do not usually say that the will acts; we do not consider the train of ideas to be under the direction of our will. In the last case, we consider the will insufficient to control the thoughts; there may be an effort, but the ideas seem ungovernable. This is the state which is called, "losing presence of mind;" the mental government is lost; the mind is distracted by the variety, complexity, and rapid changes of its thoughts. As might be anticipated, the intermediate state is that which is under the control of the will.

The thoughts are then neither too many to divert attention, nor too few to prevent the full exercise of the will. If the mental action was restricted to one train of ideas, all change in the course of thought would be precluded; but change is inseparable from an exercise of the will, which implies choice.

The term, will, is now used in the ordinary acceptation of the word, because it is probably more intelligible than any other phrase. But the will is nothing more than the desire or willingness which has been described to accompany every mental act. This desire induces decision; and decision, action: the mind directing the conduct. The desire is caused by, and is inseparable from, the mental action, and it is in direct proportion to that action. Thus the similarity of some of the trains of thought, that is, in other words, the connection, the association, of several of the ideas forming the various mental actions, produces a stronger bias to one mode of thought, or to one subject of thought, than the other trains of ideas. Consequently the desire or will, is directed to that subject of thought: the mind is then said to will, that is, to choose one train of ideas, or one idea only, in preference to all the others passing through the mind. Choice pre-supposes will; consequently whenever a preference has been given, the will has been exercised. The more frequently choice is made, and the greater the number or variety of the subjects of choice, the more evidently is the exercise of the will manifested.

Thus in the supposed case of a multitude of ideas distracting the mind, and preventing attention and self-command, could the will have acted decisively, it would have been the highest effort of its capability. The power of exercising will, is the essential of self-command.

Thus the greatest effort of the will, is the selecting from the greatest number of conflicting thoughts; and, in like manner, the least effort, or, more strictly, the no effort of will, would be in the first case supposed, where only one simple train of ideas passing through the mind, idea following idea by one suggesting cause, would prevent any choice and exercise of will.

It is evident, therefore, the will (using the term in its common meaning) cannot be exercised when only one single course of thought constitutes the mental action. The idea we have of will is, in this instance, almost identical with choice, and there must be at least two ideas from which to choose; but both these ideas would be regulated by the laws of suggestion; and the greater power of association which one idea might have over the other, increasing the mental action in one case, and diminishing it in the other, would give that apparent power of choice and will, which is commonly considered to be a distinct faculty of the mind. It would be possible, though probably it would seldom occur, that two ideas should be nearly balanced, each possessing equal power by suggestion and association. But this condition could not continue long, and then some idea would produce an action of the suggesting power, and apparently the will would act.

The consciousness of an exercise of the will, therefore, depends on the concurrence of two or more trains of thought. In sleep, when only one set of ideas, as is often the case, constitutes the mental action, the dreamer is aware he does not exercise a controlling power; and hence, perhaps, has arisen the opinion, that in sleep the will is powerless. But it is evident the will is exercised at all other times, the only exception is the single case now mentioned. It is however to be remembered, that the mental action is always similar, for the choice which constitutes will is but imaginary. The mind appears to decide, by a distinct faculty, or mental element; but the laws of suggestion are alone the cause, and the only possible cause, of every such mental decision.

SECTION II.

It has been shown that the mind can, in the insensative state, exercise all its functions which depend on memory only; but it may be, that an especial tendency to one particular species of thought prevails in sleep. We know how much the circumstances in which we are placed, regulate the nature of the trains of our thoughts, and how easily the reason or the imagination, the moral feelings, or the sentiments and passions, are aroused by the circumstances of the moment; and how, also, the previous state of the mind may dispose to one or other kind of thought; for the present condition of mind may influence the subsequent condition, independent of any other cause. The suggestion of ideas, and the nature and regulation of the trains of thought are the same during sleep as in the sensative state; for, continuing the first assumption*, the absence of sensation does not affect them. The imagination, however, has a greater sway over the mind, and is more exercised than the reasoning powers. The rapid and incessant activity of the memory of sensations during sleep, and especially of those of vision, cause the remembered ideas of this sense to possess a very peculiar power over the mind in its insensative state; and hence they form a large proportion of the mental action. The imagination is peculiarly excited by visual sensations, and it is to be anticipated consequently that, during sleep, the imagination would be particularly active.

When it is considered that the ideas which are formed in the mind in the sensative state, consist in great part of ideas of sensation, and especially those of vision, it would appear to be an unavoidable consequence, that in sleep the memory should also bring into the mind a majority of ideas of external formation, and a large proportion of those ideas of vision.

The reasoning faculties require for their greatest activity the utmost abstraction, the entire energies of the mind should be concentrated in the operations of reasoning. Thus, from the total seclusion of these faculties during sleep, they may be expected, when in operation, to be capable of the highest efforts, and to possess their greatest power. It is a result which must ensue, that when the reason is in action during sleep, it should be possessed of a degree of energy not to be attained under any other circumstances.

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* Viz., the absence of sensation, the only difference in the mental action of sleep.

Imagination is undoubtedly one of the elements of mind. It is caused by invention and memory acting under an excited state of the mental faculties, both intellectual and moral. The imagination has as its peculiar attribute, the power of perceiving beauty in every form in which it can be presented to the mind. It is the mental faculty by which the sublime and beautiful produce their peculiar effects. Poetry is the mode in which the imagination is most frequently exhibited. Poetic representations are not necessarily limited to language, for they may be produced by any symbols which can convey ideas to the mind. Poetry is the chief mode of the exhibition of imagination, and is probably that species of thought which is most easily exercised. It is caused especially by the imagery of nature, and by the remembrance of events. Imagination is the cause of invention and originality in every combination of mind, not only in poetry, but also in philosophy. Imagination forms new combinations of ideas, and clothes the abstractions of reason with the colours and forms of visible nature: it is the ornamental of mind; imagination adorns that which reason has ascertained. Reason is more purely intellectual, and widely separated from the sentiments and passions.

But imagination requires the energy of sentiment and passion to give it influence—the mind should be morally as well as intellectually excited. It is easily combined with the religious sentiments, and is also capable of being exercised with the severer attributes of mind, and of abstraction from the other elements which originate, and suggest thought.

SECTION III.

When ideas of the sensation of sight arise in the mind during sleep, their rapidity, vividness, and number prevent, in a great degree, any change from them to other trains of thought. Since a great proportion of the ideas received into the mind are ideas of vision, and also as these ideas are more easily remembered than any other ideas of sensation, they constitute the chief part of the ideas arising in the mind during sleep. Thus, the majority of dreams are the memory, and therefore (from the absence of sensation) the apparent recurrence of events, or of fragments of events strangely grouped. The imagination is powerfully excited by visible objects, and consequently from this prevalence of visual ideas, the imagination is the mental faculty most energetic in sleep. The peculiar nature of the imaginative power will give to the dreaming state a poetic and a visionary character. Hence the fanciful and wild character of dreams; their prevailing characteristic is imaginative, an exuberance of fancy which defies all control, and far outsteps the bounds of reason, is the chief element of these visionary thoughts. Yet it is not because reason cannot, and even does not act, but because the trains of thought of this particular species take firm hold on the mind; and their powers of suggestion being the strongest, other trains of thought cannot enter the mind,—cannot cause mental action; and consequently, until the thread of that course of thought is broken, other ideas have no chance of acting by exciting the mental elements to activity.

From this cause arises the twelfth peculiarity, which is,—the Imaginative Character of Dreams.

The same reason may be given for the apparent absence of an exercise of the will during sleep. For since the consciousness of an exercise of the will requires the concurrence of two or more trains of thought, between which the mind as it were vibrates, each mental operation being a mental state,—when only one train of thought constitutes a mental action, no choice can be made, and no apparent exercise of will takes place. The mind does not then apparently select one train of thought in preference to another, (that is, one train of thought has not a greater power of suggestion than another,) for no selection can then be made; and it has been shown that but one scene can form the hypnitic representation, and also that the imagination is the chief instigator,—the most fertile source of ideas,—in the insensative state. Therefore there is a unity in the thoughts of sleep, (that is, generally,) because one powerful train of thought monopolizes the mental action. The suggestion of other trains of thought is not sufficiently powerful to divert the mental action; and that most powerful director and instigator of thought—sensation, is from the assumption inactive. Thus may the apparent absence of the will in sleep be explained. This forms the thirteenth peculiarity,—the Apparent Inactivity of Volition in the Insensative State.

The same reason may be given for the infrequent exercise of the moral power in sleep. It has been remarked, that in dreams the moral power is seldom exercised; that occurrences are often supposed to happen which do not excite disapprobation, as they would do in the waking state. That the mind is not influenced by the conscience. It has been mentioned by all writers on this subject, that during sleep we experience no feeling of moral restraint.

Numerous instances of dreams may be found, in which the dreamer supposes he is committing some crime, and yet without having the least compunction in so doing: at other times, that he is witnessing the commission of crimes. Many examples of such dreams are recorded. To the dreamer these actions do not appear to be extraordinary occurrences; and they excite neither surprise nor disapprobation.

Since the remembrance of ideas of sensation is distinct, in proportion to the intensity with which the sensations were at first impressed on the mind;

and also, since some sensations are more vivid than others, and produce a greater effect on the mind, an effect arising from the nature of those sensations; and that when attention is directed strongly to one operation of the mind, the other mental actions are comparatively slight in their degree of energy: it necessarily follows, that when a sensation is remembered, especially if it be one of the greatest energy, as vision, the mental action is intense, and the other operations of the mind are comparatively obscured by that intense action. Thus, in the now mentioned class of dreams, the representation is one of the most exciting character; and the attention is in the same degree restricted, by this powerful mental operation, to that particular action of the mind. The mental action is limited to the observation of the supposed event. Thus, the moral and other mental faculties are in abeyance; the ideas which the moral power has formed in the mind are not remembered; the moral memory is inactive, because the mind is intensely excited by a different species of operation. The memory being strongly excited to activity in the representation of visual scenes cannot act, or but very slightly, in producing other ideas; and thus the ideas formed by the moral elements of mind are rendered inactive in their powers of suggestion. Moral ideas are not suggested. The imagination is too engrossing to admit of any mental action not imaginative.

The sleeper supposes he sees passing events,—

that what he looks upon is really taking place. It will be found by experience, that the observation of any occurrence of an exciting nature so absorbs the attention, so firmly roots the mind to the scene of the event, that the remembrance of all other things is obscured; even the consciousness of time and place is sometimes, for the moment, destroyed. The overpowering nature of anger is produced by the same cause. He who is excited by that passion, forgets at the moment the precepts which reason and moral principle would dictate: the intensity of the mental energy so carries him away, that his mind is fettered and helpless, acting only in one train of thought. Thus other thoughts have not power to suggest themselves, the *vis mentis* is expended on one idea. After the passion has worn itself out, the ordinary laws of suggestion resume their sway, and the first ideas suggested are those of a moral nature; repentance follows close on the infraction of the moral rule. These ideas are first suggested, because they are nearly allied, by contrast, to the ideas forming the train of thought which caused anger.

SECTION IV.

It will tend to explain some singular operations of memory, when reproducing ideas of the moral power, if this subject be more minutely analized.

The remembrance of an idea which was not formed by the intellect, but by the moral power, may, by its remembrance, excite the same feeling which accompanied its formation.

For example, the remembrance of an injury (however suggested to the mind) may cause an action of that mental element which excites the feeling or passion of anger; that passion is therefore produced. The idea remembered, is the same idea which gave rise to that passion; it exists in the mind as it existed at its formation; it then produced anger, therefore it now causes anger.

It is said the remembrance of a passion *may* excite the feeling which existed at its formation; but also the remembrance *may not* excite that feeling. An essential circumstance is independent of the memory, viz., the duration of the remembrance,—the time during which that idea of the memory is present to the mind by constituting its action.

The act of another may have been the cause of our anger; that action, being material, had duration; it was before the mind for some time—it was not done with the rapidity of thought; the idea was, therefore, permanently present to the mind, that is, permanent for a limited period. The idea was, consequently, during that time, exciting the element of the mind which arouses that passion, and which was accordingly produced. Now, it is possible, the remembrance of that idea may not subsist longer than the other ideas in the train of thought constituting that remembrance; and thus it does not always happen that the remembrance of a passion reproduces the feeling of that passion, although this might be the case if the idea was detained in the mind. The cause may be present, but it may not act for a sufficient time to produce any effect.

Two writers on mental philosophy appear to differ in opinion on this subject. Dr. Brown considers suggestion to be the sole cause of the succession of thoughts of remembrance of whatever description, and does not appear to think any other action can take place than the simple remembrance. Dr. Chalmers considers suggestion is not an agent, but that the object itself, and not the remembrance, *excites* (not recalls) the feeling.

"Dr. Brown has conceived it necessary to extend this principle (that of suggestion,) to feelings as well as thoughts, insomuch, that, if on a former occasion a certain object have been followed up by a certain feeling, or even if one feeling have been followed up by another, then the thought of the object introduces the feeling, or the one feeling introduces the other feeling into the mind, on the same principle that thought introduces thought. Now we should be rather inclined to hold that thought introduces feeling, not in consequence of the same law of suggestion whereby thought introduces thought, but in virtue of the direct power which lies in the object of the thought to excite that feeling*."

"It (suggestion) is not limited to those (conceptions) more than to any other states of mind, but occurs also with equal force in other feelings, which are not commonly termed ideas or conceptions; that our desires or other emotions, for example, may, like them, form a part of our trains of suggestion, &c."—Brown.

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* Chalmers's *Bridgewater Treatise.*

It appears from what has preceded, that suggestion is the cause of the remembrance of the thought, but that the excitation of the feeling is caused by the concentration of the mental action. The memory of the feeling is suggested by the object, or its remembrance, but the feeling itself is produced, "*in virtue of the direct power which lies in the object of the thought to excite that feeling.*" If this "*virtue*" was the only agent, then no feeling could be remembered without a corresponding feeling being excited; but by making a distinction between the simple remembrance of the idea, and the permanent action of that idea on a mental element, the explanation is general for every case, for then a remembered passion *may* be a simple remembrance only.

SECTION V.

The last two peculiarities will be greatly modified in their operations by the partial action of sensation. The transition state will increase the power of the imagination, because a real sensation will add to the deceptive reality of a remembered idea of that sense. The presence of an immediate sensation will not cause a comparison to be made between the real and the remembered sensation, because they will coalesce—they will unite, and the real will add to the degree of distinctness of the remembered sensation.

It was shown in the section on the first peculiarity, that sensation acts as a check to the rapid course of thought, that it is a clog to the mental operations, and that when removed, the trains of ideas remembered pass through the mind more rapidly, because the mental action is concentrated, and not diverted by the activity of any immediate sensation. A very singular effect is produced in some states, or actions, of mind, by this variation in the concentration of thought, an effect not yet touched upon. When we look attentively on any object, the mind is (as by some power or exterior force) compelled to observe and reflect upon it; and this compulsion varies with the degree of attention employed.

The consequence is, that all the ideas associated with the permanent object will most probably arise in the mind; the endurance of the idea of that object gives time for the ideas (from whatever cause) connected with it to be suggested. It is thus we are enabled, in the sensative state, to fix the attention on one subject or object of thought. The permanency of the material objects around us, causes a permanency of association or suggestion in the ideas they produce in the mind. Hence there is a fixedness in the thoughts of the sensative state; sensation restrains the rapidity of thought, and binds the mind to one locus of operation. When ideas of sensation conduce to the same subject of thought as ideas of reflection; that is, if they form part of the same train of thought, then is one species of thought assisted by the other. The ideas of sensation, by their permanency (arising from the durability of the material substances which cause them), give rise to trains of thought associated with them, and these suggested ideas have consequently a certain degree of permanency; thus the mental action is limited to one subject; then the ideas of reflection tending (as supposed in this case) to the same course of thought, are the more restrained by these sensations to the one subject of mental action. The concurrence of the two species of ideas strengthen each other's action, and thus do the two species of thought perfect the mental operation.

The assistance given to the mind by a drawing or diagram, by algebraic formulæ, and by maps and plans, depends almost entirely on this principle. The ideas of sensation they produce are allied to those of reflection, with which the mind of the observer is occupied; and the rapidity of the reflective train of thought is restrained by the permanent action of sensation.

The thoughts associated with persons, places, and things increase the intensity of ideas of sensation. Whenever these two species of ideas can be connected with the same subject of thought, the mental operation is invigorated, but the field of its action is the same; the thoughts are therefore concentrated.

It is not to be inferred that the mind is always restricted in action by the presence of external objects; but the fact that attention is difficult to attain when any thing is present to excite an action of the senses, is a decisive proof that the mind is biassed by sensation, and cannot pursue the internal trains of thought with that freedom, which is to be had when no object of sensation diverts the mind from the internal operations. But if the two species of mental action are concurrent, if they tend to the same point, if the subject-matter of reflection is also the subject-matter of sensation, then is the power which sensation has to divert the mental action, brought to bear on the train of internal ideas, and the mental operations aid each other by their concurrence.

The two classes of thought, the external and the internal, act as a check the one on the other; if sensation is stopped, the imagination is dominant; but let the senses act, and the rapid course of thought is instantly impeded by the consciousness of the presence of external objects. It has been stated that the absence of sensation increases the reasoning power of the mind, because the mental action is concentrated. This does not interfere with what is now mentioned. The reasoning power certainly should be more accurate, but then it presupposes the initial idea of that reasoning train of thought to be already in the mind. But it has been also proved that ideas of the sensation of vision are the most easily remembered; and moreover that they are more numerous than any other species of idea. Consequently, a reasoning train of thought is less to be anticipated than one of imagination,—which last has been shown to be chiefly caused by ideas of vision.

The exercise of the will (so called,) is displayed in full force in those cases where the limitation of one species of thought by another, gives to the mind the notion of choice, which precedes will. The united action of sensation and reflection, causes the perfect consciousness of the mind. The balance of power between the two classes of thought, gives an apparent control to the mind over itself. A limited sensation, therefore, gives only an approximation to perfect consciousness. A state of partial sensation, a semi-sensative state, can be only a mental condition which, comparatively, is partially conscious. Mental action is consciousness of mental activity, and mental existence. Mental action and consciousness cannot be separated; thus consciousness is co-extensive with the operation of the mind; but the meaning which the word is usually intended to convey, is the consciousness of the complete action of the mind; in other words, the action, the perfect action, of all the mental faculties. From habit, the sensative state is the period of mental action, to which the mind refers all its ideas as the standard of its operations. Thus all thoughts are considered, by the insensative mind, to be the mental operations of the sensative state.

SECTION V.

IDEAS of sensation are remembered more or less frequently in proportion to the facility with which those ideas are remembered. When ideas are formed, they in general become associated with those which immediately precede and follow them. This appears to be necessarily the case; for evidently some common idea must have connected the consecutive ideas; whether they were formed or suggested, an idea must be supposed to have existed, which was the bond of connection between those ideas. Consequently, whenever an idea is remembered, it becomes associated with other ideas. Thus, after repeated remembrance, many other ideas become associated with the idea remembered, and when that idea is again remembered, the influence of suggestion may cause other ideas to arise in the mind. An idea eventually may thus acquire a great suggestive power, and whenever remembered, the train of thought will be quickly diverted into another channel by the influence of some of the suggested ideas. The mental action will not consequently be concentrated on that idea. But when an idea is seldom reproduced in the mind, the suggestive power is less or nil, and the mental action is concentrated. The vividness of a remembered sensation is increased by the concentration of thought; and thus an idea seldom remembered is more distinct when reproduced to the mind, than an idea of the same sensation, similarly formed, but frequently remembered. The distinctness of such ideas causes their very few associated ideas to be easily and distinctly suggested. An idea remembered for the first time, could suggest only the ideas nearly cotempore with it at its formation. From this it follows, that the ideas of those senses seldom, because indistinctly, remembered, would when remembered, present the few ideas associated with them with very great distinctness. There is a considerable difference between an idea remembered in consequence of the suggestion of an associated idea, and one remembered by its affinity to the idea or ideas which originally formed it. For instance, suppose an idea of taste was formed simultaneously with one of smell (the two ideas being unconnected with each other,) and many years after, those ideas not having been suggested in the mean time, that the same food is tasted, and the co-existent idea of smell is reproduced by the association induced by their simultaneous formation; it may happen that this last idea will be vividly brought into the mind, and with a freshness not common to ideas suggested in the ordinary manner. This distinction is the difference between an idea recognised, and an idea simply suggested. The term recognition may be applied to that species of memory which arises from an idea suggested by that which formed it; the remembrance being caused by the same antecedent which preceded its original formation; thus the same cause produces the idea without the intervention of any intermediate idea of an associated train of thought, the remembrance is produced by the actual cause of the first formation, and no other idea is interposed.

With respect to the sensations of taste and smell, it has been disputed whether we are able to reproduce their impressions at all; and of sound, the greater number of persons have such obscure remembrance, that some would be disposed to question our power of repeating to ourselves those impressions. Others on the contrary assert that these sensations may be distinctly remembered. But of all the senses, none give back such vivid representations as the sight; and this, probably, is the solution of the difference of opinion on this subject; for the remembrance of visual sensations is often, perhaps generally, made the standard of comparison. An idea seldom remembered, has few ideas associated with it, and is consequently, when remembered, more permanent in the mind, and therefore also the more distinct. And again, since the distinctness of remembrance is inversely in proportion to that of suggestion,—because suggestion diminishes the intensity of a remembrance,—an idea, of any sense, obscurely remembered, (as of taste or smell,) would, when reproduced, be presented to the mind with peculiar vividness. An idea remembered under these conditions, being unalloyed by any associations except those existent at the original formation of the idea, would be produced by the memory, uncombined with any associated ideas of the intermediate period.

Only the thoughts coeval with its formation could be suggested by that idea. And since thought, when combined with thought, is indistinct in comparison with the single and undiffused action of mind; the thoughts of that past time would be forced into the mind with an intensity, in comparison with which the ordinary action of memory would be dim and obscure. Thus it often happens from this peculiarity in the memory, that an idea of which all trace has apparently been lost to the mind, is suddenly and vividly pourtrayed by the involuntary act of the memory. The idea which for years had lain dormant in the "store-house of the mind," is in a moment, and without sufficient evident cause, aroused, and with it all those long forgotten associations connected with the idea start into life, and with the clearness of immediate sensations. It is of common occurrence to have such ideas vividly remembered; ideas of a period of time long since passed away; by the simple suggestion of a recognised idea of sensation. It often happens, that the sense which caused this vivid remembrance, is one of those so obscure and difficult of remembrance, that only the actual excitation of the sense would suffice to recall the idea and its adjuncts; it is then instantly recognised and remembered, and also the ideas which coexisted with it when first formed in the mind.

The associated ideas cannot be recalled (so far as they are connected with the sensation,) unless the idea of sensation is first remembered; and if they are, as is usually the case, subordinate ideas, then their reproduction by memory is absolutely dependent on the idea of the immediate sensation; they cannot be remembered unless the sense is excited to activity. This explains an obscurity in memory; for it often happens that ideas are remembered in so distinct a manner, by the repetition of an obscure sensation, as to cause much wonder and astonishment to the person to whose mind those long forgotten thoughts are recalled. From this it is a consequence, that an idea of sensation remembered with difficulty, because devoid of associated ideas, may be recognised with an intensity greatly exceeding that usually attending the remembrance of ideas of sensation. It is for this reason that the repetition of a sensation long since forgotten (because without suggestive power) is instantly recognised; and ideas associated with it at its formation, also reproduced with their former distinctness.

Another operation of memory should be particularised, that it may not be confounded with those last mentioned. A sculptor, for example, recalls to his mind a statue he has seen; he wishes accurately to impress on his memory the proportions of the figure, the position of the muscles, and the characteristics of the sculpture. He reproduces by imagination the figure of the gladiator; every lineament is clearly pourtrayed. So accurately did the sculptor examine the statue, that the mental representation is scarcely less truly defined than its real prototype. Now a repetition of this operation of mind would give greater accuracy to the remembrance of that statue. Each new remembrance would strengthen the memory of that object. But in this case no intermediate ideas are admitted; it is a remembrance without any new idea which could give a suggestive power.

It has been stated that ideas of sensation are remembered with various degrees of distinctness, and that those of the senses of touch, taste, and smell, are indistinct when compared with ideas of vision; but probably there is much difference in the innate power possessed by various minds to remember sensations. The senses are known to vary very greatly in their perceptive power. Some persons have a more acute action of only one sense; others possess a great susceptibility in all the senses.

The following extract shows the possibility of a very distinct remembrance of the sensations of taste and smell:—

"The senses of taste and smell are less frequently the harbingers of pleasures and pains than those of hearing and sight, and therefore the ideas left by them must depend less upon association for their durability, than upon the absolute degrees of pleasure or pain*." Fearn then illustrates this opinion by his own experience. "In the course of voyaging to various distant countries, it has several times happened that I have eaten, once or twice, of different things that never came in my way before nor since. Some of them have been pleasant, and some scarce better than insipid; but I have no reason to think I have forgot or much altered the ideas left by those single impulses of taste, though here the memory of them has certainly not been preserved by repetition of the sensation.

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* *Essay on Consciousness,* by JOHN FEARN.

"It is clear I must have seen, as well as tasted, those things, and I am decided that I remember the tastes with more precision than I do the visual sensation had with them. I remember having once, and once only, eat kangaroo, in New Holland, and having once smelled a baker's shop, having a peculiar odour, in the city of Bassorah. Now both of these gross ideas remain with me quite as vivid as any visual ideas of those places; and this could not be from repetition, but really from interest in the sensation. Twenty-eight years ago, I partook (in the island of Jamaica) of a certain fruit, of the taste of which I have now a very fresh idea.

"I have had repeated proofs of having lost retention of visual objects at various distances of time, though they had once been familiar."

Ideas of the sense of sight, of all other sensations, give the most intense delight. Sublimity and beauty of poetic thought would seem impossible without sight, and yet the perfect exercise of this sense, for a very brief period only, would supply the imagination with an inexhaustible store of ideas to a mind which, unfortunately, should be thus limited in the use of light. Milton could have had ideas of form and colour only by remembrance. Blacklocke is another instance of a blind poet; but he, when very young, possessed the sense of sight. It appears to be scarcely possible that any ideas could be formed which should correspond in combination to ideas of sensation. To those who never saw the light, the descriptive of poetry must be as unintelligible as the most perfect harmony to the deaf. The explanation by, or reception of, such ideas from others, could only be apprehended by the mind of a blind person from comparison, or by the representation of them by ideas of the other senses: but even then the idea so formed would be, most probably, very indistinct and obscure.

The eye, or rather the sense of sight, has power to excite and influence the imagination, not only by the direct and immediate representations it brings before the mind, but also by the innumerable associations which every idea of sight suggests.

The imagination of the poet is enlivened by the scenery around him—the mountain glen or the moonlit ruin; the love of country is aroused by the cliffs of his native land, when seen by the traveller after long absence; and the domestic, and more homely associations of the weary peasant, by the sight of his humble cottage, when returning home after the labour of the day.

The following extract from Dr. Reid's *Treatise* *on the Intellectual Powers* is a very remarkable representation of the power of sight as a mental agent, as one of the material tools with which the mind works:—

"If we suppose an order of beings endowed with every human faculty but that of sight, how incredible would it appear to such beings, accustomed only to the slow informations of touch, that, by the addition of an organ, consisting of a ball and socket of an inch diameter, they might be enabled in an instant of time, without changing their place, to perceive the disposition of a whole army, or the order of a battle, the figure of a magnificent palace, or all the variety of a landscape. If a man were by feeling to find out the figure of the peak of Teneriffe, or even of St. Peter's at Rome, it would be the work of a life-time.

"It would appear still more incredible to such beings as we have supposed, if they were informed of the discoveries which may be made by this little organ in things far beyond the reach of any other sense. That by means of it, we can find our way in the pathless ocean; that we can traverse the globe of the earth, determine its figure and dimensions, and delineate every region of it; yea, that we can measure the planetary orbs, and make discoveries in the sphere of the fixed stars. Would it not appear still more astonishing to such beings, if they should be further informed, that by means of this same organ we can perceive the tempers and dispositions, the passions and affections, of our fellow-creatures, even when they want most to conceal them? That when the tongue is taught most artfully to lie and dissemble, the hypocrisy should appear in the countenance to a discerning eye; and that, by this organ, we can often perceive what is straight and what is crooked in the mind, as well as in the body. How many mysterious things must a blind man believe if he will give credit to the relations of those that see*."

If it were the good fortune of but few to possess the power of sight, the few who had this "rare gift would appear as prophets or inspired teachers to the many†."

The following quotation from Dr. Maculloch, is on the nature of light.

"Imponderable, intangible, incapable of being arrested and accumulated, ever under the most rapid motions, though we cannot discover a projectile force, coming we know not how, and vanishing we know not where, it is in all but the power of thought, a spirit."

It will frequently occur in sleep, that a real sensation (from a variety of possible causes) will be made the origin of a mental action. If the sensation is formed during a dream, it will greatly modify the action of the hypnitic drama. If the sensation be one of those which are but indistinctly remembered, then will the associated ideas be very clearly represented. This action of the memory will cause singular combinations of thought during sleep,—or rather, in the period of transition, for some immediate sensation is required.

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* Dr. Reid.

† Ibid.

CHAPTER VII.

THE CONSTRUCTION OF MIND. THE MORAL POWER AND FREEWILL.

SECTION I.

THE mind may be assumed to be a substance capable of being a medium; as possessing the power of transforming and transmuting that which is presented to it; of thus being both a cause and an effect, an agent and a patient;—as a prism receives the rays of light which it transforms into colours, may the mind be supposed capable of receiving impressions by sensation, and transforming them, analyzed by reason or tinted by the imagination, into other ideas; thus clothing, as with the gorgeous apparel of the rainbow, the cold and inert matter around. But, without light, the prism is but a hard and brittle stone; and the mind, without ideas, an unknown existence. To consider the mind as a part of a great design, is consistent with our knowledge of the creation. The mind is adapted to the body, and the body to the mind; the immaterial to the material. The mind is as much a part of the natural system as the body. This is analogous to the animate and the inanimate creation. The vegetable world is adapted to the earth which gives it support; the structure of a plant to the soil in which it grows; trees to their site, and herbs to their elevation above the level of the sea, the temperature, and other circumstances of terrestrial position. So also with regard to animals. The animal and vegetable world are alike the subjects of mechanical construction; they are but animal and vegetable machines. By knowing the structure of an animal, its nature, habits, and locality may be determined. So accurately and certainly is the mechanism indicative of the nature, that a single bone, or even only a portion of one, will suffice to determine the structure and habits of the animal*. The mind may be considered to be a substance capable of being affected by certain circumstances, to suffer change from which it is by nature constructed. Consequently, whenever the required circumstances and the mental elements come into juxtaposition, the predetermined effect must ensue, but at no other time. Again, the mind may be conceived as being a composite, and not a simple substance; and that each component part is susceptible of a different impression from external circumstances. It may also be assumed, that each separate element is influenced by distinct circumstances, and that it is susceptible of impressions different from the other mental elements, and thus that the mind is adapted by its nature to receive a variety of impressions, each received by a different element. The circumstances, therefore, in which the mental elements are placed, constitute the cause of mental action. These elements may be assumed to be acted on both by external circumstances, as is the case in sensation, or by certain internal excitatives, as in reflection. The mind acts in, through, and by the body. The immaterial on the material. Thus are intellectual and moral actions the result of mental activity. Consequently, the mental activity, that is, those elements of mind which are excited to action, constitute thought and action.

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* Vide Note C.

To every mental and corporeal action is attached a willingness or desire to act. It is evident from the construction of the mind, that it is adapted for action, and that the action is accompanied by pleasure; for if it were not so, there could be no inducement for its exercise; and to suppose the mind excited to action by a blind and unnecessary impulse, is not analogous to the general design and structure of the mind, and contrary to the ordinary adaptations of the natural system. If a natural disposition to mental exercise did not exist, who would exercise mind? And if bodily exercise was attended with pain, even if it was not attended with pleasure, how inert, how death-like would life be*! If every bodily movement caused pain, inactivity would be the only pleasure. It appears, therefore, that a propensity, a desire to exercise mind, is part of its essential character†.

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* Vide Note D.

† The idea of motion seems to have been intimately connected, in the opinion of the ancients, with the idea of mind. Motion appeared to them the essential nature of mind.—"You say that the substance to which we all give the name of soul has for its definition, that which moves itself?" "I certainly do say so."—Plato.

The mind is compelled to change the subject of its thoughts by a natural inability to reflect always on one idea, (which would be destructive to the very nature of mind as it now is,) and thus it might be supposed, in consequence of this restless activity, to pass from one idea to that most nearly connected with it by any species of similitude; and this rather than to be occupied by an idea, whether of sensation or memory, in no way similar to its predecessor. The difficulty of attention appears to render this supposition probable.

As the elements of which the mind is composed are in themselves different, that is, capable of being affected by distinct causes, any given circumstance which can affect mind, may not affect all its elements. The mind may act partially. Again, it is not impossible that the mental elements affected at any one time by simultaneous causes, may not act towards the same end, they may not have the same individual tendency. Consequently, although it is not necessary to suppose them of opposite tendencies, they may not have the same result, and therefore a double result, as it were, would be the consequence. When the mind (as has been shown) is exercised on one subject of thought, and the attention excited, the mental action is increased, and any slighter previous mental action is diminished in intensity, and gradually passes away. Thus a preponderance of the mental elements tending to one result, increases that tendency, and diminishes any other opposing or retarding mental action. Therefore the mind eventually becomes strongly excited to one course of thought, and to one certain result in material action. That action is therefore a result of certain conditions under which some of the mental elements existed at a previous, and perhaps imperceptible interval of time. This is what is termed will, and it is simply the mental action of a moment of time; not a power possessed of choice, but a necessary result.

The various elements of which the mind may be assumed to be composed, should be supposed to contain every element conducing to the well-being of the individual. If the assumption of perfect adaptation be again brought into the argument, it cannot be imagined that the mind should be otherwise constructed than in conformity to the general and universal good. The different nature which has been assumed for each element, does not interfere with the unity of the mental elements in producing one effect. Their individual variety conduces to different particular results; but if these elements are in their nature beneficial, the general results will be also beneficial. A difference in the action of any of these elements, would not be a proof of inutility; for of two such elements, the effect of the operation of both may be generally useful; but either may in some particular instance be contrary to the particular adaptation of the other. They may both agree in the general effect, and yet in particular instances they may differ.

The intellectual and moral nature may be assumed to be mental elements; for it cannot be doubted that they conduce to the individual and general benefit, nor could the absence of either be unattended with derangement to the natural system in that which regards mind. On this ground an intellectual and moral principle may be assumed to be part of the natural system, since it is evident they are adapted to the other parts of the general design; and also their non-existence would most undoubtedly be a defect. And again, it might be argued that if the general design be beneficial, whatever tendency may be supposed to constitute a part of the general plan, would have that design.

SECTION II.

It has always been a favourite argument for the immortality of the soul, that the mind thinks in sleep; that it is never inactive; and its immaterial nature (so called) has been supposed to derive indisputable proof from the mental action during sleep.

It has been an argument against the existence of an innate moral power, that the moral feelings are seldom, if ever, exercised in sleep.

It will therefore be necessary to consider the question of moral power and freewill, because as the mental action in sleep has been assumed to be similar (minus sensation) to that of the sensative state, the same arguments for or against one, hold also for or against the other.

That a moral power is part of our nature, forming an element of the mind, is so evident, that it appears useless to discuss the question. If, which is evident, the various parts of the creation are adapted to each other,—the animate to the inanimate,—instinct to the animal, the mind to the body; and if, which is also evident, the component parts of these distinct sections of existing nature, are adapted in an equal degree, even to the minutest division that could be examined, it cannot be doubted that a moral nature is as much a part of mind as the intellect or the passions.

It may be objected, "the reason will direct the observance of morality." Undoubtedly it does so; but this is only another proof of designed adaptation. Assuming a moral principle to exist, it cannot be supposed contrary to the other elements of mind; it must agree with them; morality will be reasonable. It is not doubted that the intellect is of two kinds, an observing—a reflecting: but why should not observation effect that which we think is performed solely by reflection? Observation, with experience, would produce the same result as reflection. Extend observation to every conceivable case, and experience will effect the required result. But this is the difference; one is immediate, the other is not. Reflection produces in a thought, that which years of experience might not effect. This is analogous to other parts of the natural system. Animals have instinctively a desire for that kind of food which is the best suited to their bodily structure. They might learn by experience; but be poisoned or die of hunger from an excessive caution, before experience directed them. They could only eat, at first, the smallest quantity, lest it should be injurious, and even then at great risk. Nature might have adopted this method. Plants possess a corresponding nature, similar to instinct, and effecting the same results. The adaptation is for an immediate action, for the wants are immediate*.

Now the moral power gives an immediate rule of action; a rule which could not be given by any other adaptation. The mind requires an immediate moral guide, as much as the body an instantaneously acting preservative power. What is conscience, but a similar protective power, to ensure a moral action of the mind?

If conscience did not act with rapidity, if its effect was not immediate, the most powerful restraint to any sudden impulse of passion, would be taken away. If conscience delayed its action, and was a species of reason, or operated as experience, its most useful effect would be destroyed. It is the instantaneous action of the moral guide that constitutes its greatest power. No other conceivable method could have been adopted to produce the required effect, but the application of an original element of mind, acting with an immediate impulse. Reason might produce the same effect, but could only influence those who possessed experience; it would apply to the aged, but not to the young. It is evident, therefore, that a moral power is requisite to the mental system.

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* Vide Note E.

The immediate action of the conscience is sometimes prevented by the violence of the passions. Thus anger, by its intense action, monopolizes all the mental energy. The *vis mentis* is expended in the rapidity and vividness of the passion. Suggestion becomes inoperative. The conscience is not roused, and the momentary passion rules. It is but momentary, for the mental action cannot long be sustained with so violent an excitement. This is a very singular adaptation; for it prevents, in the simplest manner, the dire effects which might result from a continuance of the passion. Then gradually, suggestion comes into action; the moral memory is exercised; the conscience is roused into activity; and the mental action is controlled by the moral power.

The elements of mind are of various kinds; as a general and concise division, they may be described as intellect, moral feelings, and passions; each equally requisite for the required result, and each equally forming part of the mental structure. The mind would not be perfect without all; nor equally perfect with a disproportionate allotment of power to either one. The mental action, the ideas, are the produce of the mental elements. As the soil of the earth produces vegetation, so does the mind produce thought. As the ground is the supporting power, but not that which originates vegetation, so is the internal mental operation not the originator, but the sustaining and producing power of mind; while the external operation is the seed, the original cause of mental action. The mind, without sensation, is like good ground without seed; and to continue the simile, the mind is as unable to reject thought, as the earth to prevent vegetation when the seed has been sown. As the same plant grows when the same seed has been sown, and always assimilates to itself the same elements of the soil; so does the mind always produce that particular species of thought, which is induced by the nature of the same exciting causes.

As unsown land has in the ingredients composing its soil, the elements required to cause germination, and effect those chemical combinations which produce vegetation; so has the mind in its pristine condition, capabilities to observe and abstract, to compare and combine; but remains as sterile as the unsown field, until sensation, the seed of thought, is sown in that fruitful soil by the operation of external matter on the organs of the senses. The comparison may be carried further. The soil may be assumed to consist of a number of elements, and also the seed of certain other elements. Some of the elements of each, when they come in contact, cause chemical action, and a new combination of those elements takes place: one ingredient of the seed combines with another ingredient of the soil; each element has its particular affinity, and a totally different compound is the result. Thus it is with the mind. The internal structure, that which is not acted upon by sensation, may be likened to the soil, the ideas received by sensation to the seed sown; then does the internal mental operation commence, and those states of mind to which various distinctive terms have been given, are the results of the ideas which have been forced (for it is involuntary) into the mind, by the agency of external matter affecting the senses. It is in this manner that sensation is the true origin of thought; but yet, by the internal process, ideas totally different in their nature are produced from them, by another power and distinct process of the mind.

SECTION III.

The mind has the species of its action from its elements, the method of its operation from its circumstances; that is, the mind can act only in accordance with the nature of its elements, but the juxta-position of the causer and that on which the effect is produced, is necessary to that operation. Mental action is originated by circumstances; but the action can be only of its elements.

An idea is caused by the activity of an element of mind; but the mode of the idea, by the law imposed by necessity. Thus necessity is the law of mental operation; but the action arises solely from the excitation of the mental elements. Necessity is simply the law of mental operation; it is not an element of mind. Imagine the mind inactive; then necessity is no longer a part of the mental nature, for it is only a quality of its operation; but the elements of mind still remain, the intellect, the morals, and the passions. Necessity is an accident, not an essence. As mind is recognised only by its activity, necessity is as inseparable from that we know of mind, as if it were part of its essence. The mind thinks, and under the rule of necessity: the stream of thought flows on, but it is in the channel of necessity; and necessity is as much a part of thought, as the river's bank is of the water which constitutes it a river. The river flows between its banks, and they direct its course; the water may ebb and leave the channel dry; there is then no longer a river, but it would puzzle any logician to define a river without a bank.

Man thus acts immediately from necessity, which is the law of mental operation; but he acts prospectively from the action of the elements of his mind. Like the husbandman, he can sow for the future what and where he will, but he can only reap at the present moment that which has been produced by his past labour. Man, as the sower, may sow prospectively, but he can only reap the produce of that which was formerly sown. The seed must grow according to its nature; the tiller of the soil cannot cause the plant to grow in a manner contrary to the action of the elements which give it its essential character; he may slightly modify, but he cannot alter.

If necessity is a law of our nature, and if, also, a moral power (and consequently responsibility) is a part of the mental system, necessity and responsibility—however much they seem to be opposed—cannot be conflicting laws, but parts of the moral plan by which we are governed. That we do not perceive how they act jointly in the moral system, is no reason they should not do so; that they appear to conflict one with another, is not sufficient proof that they really do conflict.

Hence it appears to be absurd to assert, that, because responsibility is essential to moral government, necessity is incompatible with it. But necessity is too evidently a part of the system of nature to be disallowed on any pretence whatever. Thus often the well-meaning moralist argues against truth to establish truth; and the atheist, grounding his argument on truth, seeks to disprove truth. To contend against reason, even to vindicate the truth, is little else but folly without vice. It is to uphold human imbecility against the perfect adaptations of the Creator.

"He that takes away reason to make way for revelation, puts out the light of both, and does much about the same as if he would persuade a man to put out his eyes, the better to receive the remote light of an invisible star by the telescope*."

A creative and preservative power (under whatever name) must be assumed by all, to account for the existence and continuance of the material and mental world; a power from whom a nature both moral and intellectual has been derived. The creative and preservative power must be greater than that created and preserved. Perfect design and adaptation in creation imply foresight in all matters (within the limits of that creation), however remotely connected, not only in present, but in past and future time. From these considerations we derive the terms omnipotent and omniscient, terms almost identical. The supposition of a moral and responsible nature presupposes the existence of a supreme being. It is not necessary to consider responsibility in any other light than as a conformity to an established order. A man who acts contrary to reason or morality, is accountable for his folly or immorality, because, in either case, he acts contrary to his nature, that is, in violation of the ordained laws of the creative power.

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* LOCKE.

In our apprehension of the term free-will, and imperfect knowledge of the attributes of the Deity, free-will cannot belong to omnipotence, because it implies conflicting motives, which prove the absence of an intuitive perception and an unerring sagacity, and are therefore contrary to omnipotence, which presupposes wisdom*. Omniscience includes the knowledge of coming events; and assuming it to be a necessary attribute of our imperfect conception of deity, the Supreme Being who foreknows must also have predetermined all events. If coming events are known, they are predetermined; for, if not, a coming event, which is foreknown, may or may not happen, that is, the known event is unknown, which is absurd. It is incompatible with omniscience that any event should be doubtful; the event must be known, consequently determined. The advocate for free-will says, there can be no responsibility without free-will, and without responsibility, no moral principle. The advocate for necessity argues, if there is a Supreme Being, he is omniscient, consequently all events are predetermined. The advocate of free-will contends, that necessity is incompatible with morality; the advocate of necessity, that predestination cannot be separated from divinity. An event may or may not happen; every event arises from some cause. But the fore-knowledge, in another word, the necessity, of an event, produces no effect upon its immediate antecedent, which is the cause by which that event is produced*.

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* Vide Note F.

Assume that a certain event may or may not happen; then assume that it is foreknown the event will happen; the relations of that event are not altered by the second assumption, for none of the antecedents to that event are altered. Thus, if an event, A, be immediately followed by another event,

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* Deus præscientiâ sua non cogit facienda quæ futura sunt. —St. Austin.

B, and this by an event, D, the fore-knowledge that D must happen, does not alter the relation between A, B, and D. Also if the event A be followed by an event C, which prevents D from occurring, the fore-knowledge that D will not happen does not alter the relation between A, C, and D. It may be said the moral effect would be this—if every event is foreknown, it must happen; it is therefore useless to attempt to direct, or even to alter, the course of events, and hence must arise fatalism. But then it is to be observed, that since the fore-knowledge extends to all the antecedents, it is equally known that an event may ensue from the inaction produced by fatalism, as that its contrary may proceed from a different line of conduct. The moral consequence, however, may alter the course of events, although fore-knowledge cannot.

Assume necessity to be the law of mental operation, and fatalism to be the result, it is scarcely possible that a case could occur to which a rule, given by the intellect or the moral elements of mind, should not apply. Thus, admitting fatalism to be a just consequence of necessity, it could seldom be acted upon without infringing the rules prescribed by the nature of the intellect and the morals; so that even fatalism might be securely allowed, for it could never be acted upon without being directly contrary to the nature and construction of mind, by opposing a moral and intellectual rule.

The mind, to our apprehension, is a compound of ideas. Mental knowledge is consciousness of mental action; that is, of thought or idea. Ideas are either those of immediate formation, by sensation or reflection, or they are ideas of memory. Thus consciousness of mind; that is, mind to our comprehension; consists only of the ideas in the mind. Now the operation of the mind on the ideas it has within it, may show a certain course of conduct to be in conformity to reason and morality. It may also show, that to be placed in a certain condition of circumstance, will rouse the passions and overcome the reason; then the mind having formed, or received these ideas, they become part of its substance, (if it may be so described,) and may arise in the mind by suggestion. Then when any circumstance suggests these ideas, they take their part in the train of thought, and may (or not) produce mental action by their direct influence. Hence the importance of instilling into the mind ideas which may possess a beneficially acting influence. Each idea received or formed, may have its share of suggestive influence in the next thought, and although each thought arises necessarily, it may be caused by the action of an idea formed by a previous mental judgment. If the elements of mind constitute its action, the method of its operation need not, indeed cannot, constitute a rule of conduct.

The mental elements are acted upon by the ideas previously formed in the mind, and which, being suggested and caused to excite mental action by immediate ideas, are consequently regulated by the law of necessity. But the result of the action of the elements of the mind is altogether distinct and independent of the external circumstances. An immediate idea suggests ideas of memory and those forming a mental judgment: the result of that combination of thought is the rule of conduct. Experience is a term which implies the formation of several ideas on one subject of thought. Thus the consideration of that subject embraces a large extent of mental action, and consequently great power of suggestion. The ideas suggested by experience have therefore great influence in the result of thought—in its practical result. Hence foresight is usually co-extensive with experience, and responsibility with the anticipation of consequences. Since the mind is constantly receiving ideas, it is also constantly adding to its power of foresight on some subject; although this may not be perceptible, in consequence of that particular idea not being brought into any immediate mental operation. The mental substance is always in a state of fluctuation; the experience of one period of thought is an element in the mental action of the subsequent period. Each idea received into the mind, forms part of what may be termed the mental substance. The error of one moment,—an error arising perhaps from the law of necessity,—probably may be an element in the mental action of the next. Then a responsibility ensues from that new idea, and the repetition of that thought confirms its hold on the suggestive power. Yet in each case the action of the mind is strictly an action of necessity. The law of the operation is absolute, and responsibility ensues from the possession of a power of anticipation. The mental action is caused by the mental elements; but the method of that action is under the law of necessity.

SECTION IV.

THE will has always been held to be a distinct faculty of the mind, because it is supposed, that without assuming the existence of the will as a separate and distinct power of the mind, free agency, and consequently moral responsibility, would be impossible. Hence to deny the will to be an element of mind, has usually been considered an atheistical tenet. But responsibility cannot be rejected, even on the supposition of a physical necessity. To avoid grappling with this subject on the grounds that it tends to atheism, is most unwise and unphilosophical. "By *will* and character is meant that which, in speaking of men, we should express not only by these words, but also by the words *temper, taste, dispositions, practical principles; that whole frame of mind from whence we act in one manner rather than another**."

We know by experience that a certain mental effect will result from given circumstances influencing the mind, either by the internal or external mental operation, and can often act so as to induce those circumstances. Thus, in most cases which occur, it might be said, that by having acted differently, other circumstances would have been induced; and that therefore other consequences would have followed; and, moreover, that we had then, or might have had (by experience or knowledge) the power of acting differently. Thus, retrospectively, we are as if free agents; and so also with regard to the future; for we have the power, by knowledge or experience, of foreseeing the consequences of certain acts, and therefore to a great degree of regulating and controlling the future. Thus, prospectively, we are as if free agents; and if both retrospectively and prospectively, then at the present moment also as if free agents, although in a limited degree.

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* BUTLER, *Analogy*, Chap. VI., note.

Mental action is synonymous with thought and idea. Mental actions are the thoughts which arise in the mind; they do not originate without cause. Mental action is a result; it is caused by the powers which produce sensation and reflection. Thoughts cannot be prevented from arising in the mind, and are with difficulty modified or controlled. Consequently, mental operations are, to a great degree, involuntary. Immediately we are not mentally free agents; and yet we possess in present time, to a certain extent, a power similar to that of free agency, because we have a capability of anticipating events, and thus of foreseeing what conditions will most probably produce, and what prevent certain results. Consequently, at the moment of the present, it may be said that we are to a great degree free agents; for in the same degree in which we had, in past time, the power of anticipating the future, in the same degree we have possessed, in past time, the power of regulating the present. Thus the present is the consequence of the past; a consequence, the cause of which was under our control.

SECTION V.

The question of free-will and responsibility may be considered under the terms liberty and necessity, liberty being the freedom which the mind may be supposed to have in instigating or causing the doing or the not doing any particular act, and necessity the want of that freedom; the first implies responsibility, the second the absence of responsibility.

It is evident that the supposition of omniscience is incompatible with liberty; for this last supposes an undetermined future; but omniscience cannot be conceived disjoined from a necessary course of events. Neither can responsibility be imagined to exist with a necessary course of action. Thus, of four admissions, viz., liberty, necessity, omniscience, and responsibility, liberty is incompatible with necessity and omniscience; necessity with liberty and responsibility; omniscience agrees with necessity; and responsibility with liberty. Then, if omniscience and responsibility are admitted, liberty and necessity must agree in one, for omniscience implies necessity, and responsibility liberty. Hence a discrepancy; liberty in thought and action is at variance with the supposed structure of mind; necessity is in accordance therewith. Thus it is difficult to reconcile the supposed nature of mind with liberty, though it agrees perfectly with necessity. Responsibility is the consequence of liberty; its reverse, of necessity. How, then, can omniscience agree with responsibility?

The general design of nature is in agreement with reason; and in all matters relating directly to ourselves, the cause and effect, the design, the plan of creation, is clear and intelligible to us; therefore, in this case, there is no reason to suppose an exception. Assume either liberty or necessity to be the law of our nature. Liberty is at variance with all analogy; necessity agrees with our experience and knowledge of mind and matter. Thus the discrepancy of necessity is less than that of liberty. Therefore, of necessity; and the question is, "How can necessity be reconciled with responsibility?" If liberty implies a perfect freedom of thought and action, and an unconditional responsibility, then necessity, its contrary, admits of no freedom, no responsibility. It has been said necessity agrees with our notion of mind; we cannot imagine an effect without a cause, or a uniform effect without a uniform cause. Therefore the mind cannot be supposed to act without an exciting cause, whatever that may be; and acting, the thought which is the result (really the mental action itself) is the precursor and cause of an intellectual or moral action; the immaterial mind operating through the material body. Thus the necessity is in the cause of mental action. If the mind, in its essential structure, may be imagined to consist of elements liable to be excited to activity by the influence of certain external circumstances, then do the circumstances affecting mind constitute the necessity of its action.

We know, by experience, that a certain mental effect will result from given circumstances influencing the mind. Circumstances may be induced, sometimes directly, at others indirectly; and thus the exciting causes are in a greater or less degree subservient to a former mental action; this foresight constantly acting, acquires strength by its remoteness from the ultimate result. Therefore it is possible to have by fore-knowledge (however acquired) the power, in a greater or less degree, of regulating the mental action of the present moment. Therefore it may be said, that, prospectively, we are as if free; for if we have the power of inducing certain circumstances which will tend to produce certain known effects, we have to some degree, even if only indirectly, the power of causing certain predetermined results.

To the extent of our foresight we are free, even on the assumption of necessity; consequently, to the same degree, we are responsible. Experience is possible whenever memory has acted; thus, only in the primary mental action is experience impossible. It would be difficult to assign a distinct limit to our power of anticipation and foresight; and to the same degree are we accountable. From this it is evident that knowledge, especially moral knowledge, renders man accountable; for moral principles are a rule of conduct, and direct the exercise of foresight; and hence a responsibility. Therefore, whenever knowledge of moral or religious tendency has been received, a responsibility immediately ensues; for a rule of life, however faint and indistinct, has been given; foreknowledge is possible, and in proportion to that knowledge is the individual responsible. Responsibility, therefore, exists simultaneously with the acquisition of moral and intellectual knowledge; and if any act be contrary to reason or to moral principle, the agent is accountable in proportion to his knowledge, and his capability of acting in conformity to that knowledge.

It has been shown that the intellectual and moral faculties are directly implicated in dreaming, and that we are accountable for the thoughts which circumstances, over which we have control, cause to be formed, or to arise in the mind; therefore, the thoughts of sleep being those of memory, we have a corresponding degree of responsibility in dreaming; for the subjects of the mental action. It would be absurd to suppose we were responsible for the imagined actions of our sleeping thoughts, because they are unreal; but we *are* responsible for the ideas which produced them; because the ideas constituting the trains of thought were indirectly under our control at their formation; and in that degree we are responsible. This is contrary to the usually received opinion, for it is said the will is not active in sleep: but if we can, to a great degree, direct our thoughts, we are to that degree accountable at every period of thought. In sleep, as the mind acts by memory, and as the ideas in the memory were formed chiefly under our own sanction, we are so far accountable for that memory. Thus we are accountable for the elements of which the hypnitic scene is formed, but not for the aggregate representation, which may be of a character distinct from its elements*.

The mental action, or thought, in sleep, must partake of the same essential nature as the thoughts of the waking state. The same powers, and the same defects, will be characteristic of the mind, both when sensative and insensative. The mind is always the same individual mind; it can differ only in its mode of action. Whatever tendency may be in the mind of the sleeper as a natural element, will undoubtedly show itself in the dream. The ancients considered dreams to be an accurate delineation of the natural character. This is evidently, from what has preceded, too wide a conclusion; but the thoughts which arise will have no very great difference, as to their nature, in either state of mind. The prevalence of imaginary subjects in sleep will be the chief distinction. The following extract is also exaggerated, but true to some extent:

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* Vide Note G.

"The organ of the mind has suffered, in common with the whole man, from the perverting influence of the fall; its manifestations have become disordered, and dreaming is one of its diseases. * * * It may be said, they are the result of sin, which having entered into the world, pervades its remotest boundary, and more especially the heart of man, and all its thoughts and actions; and that dreams are sleeping thoughts, characterised by this fatal influence*."

SECTION VI.

MENTAL AND PERSONAL IDENTITY.

It has been said, the term consciousness, is equivalent to the united consciousness of sensation and reflection; that is, of the action of the external and internal mental operations. Now the action of only one of these species of mental operation, would not produce that mental state understood by the word consciousness; but yet it would be a known conscious action of that particular operation. Thus the absence of sensation, while the mind was reflecting, would not be a conscious state, in that meaning in which the word is used. But in sleep the memory supplies the place of sensation, and the imagined scenes produce a fictitious, although to the sleeper a real and perfect consciousness. But if the memory does not supply the place of sensation by the reproduction of ideas of sense, the mental action is only of reflection, and it has only the corresponding consciousness. It is, therefore, an imperfect consciousness. Now, since our conviction of personal identity depends on a state of perfect consciousness, the sleeper, under the delusion of imaginary, mistaken for real sensations, has a clear perception and belief of his personal identity; but not so, when his memory supplies him with ideas of reflection only. Then, he no longer thinks he sees, or hears, or exercises any of the mental powers which connect him with matter; for the operations of his mind are solely of things immaterial. He has, then, no knowledge of personal identity, and is ignorant that *he* thinks; and until he awakes, knows not that certain mental operations have taken place, that ideas have passed through his mind; thoughts which at the time were not recognised by him as the operations of his own mind. He was *then* unconscious. The conviction usually produced on awaking, in the mind of the dreamer, in such a case as this is, that some supernatural intervention was the cause of those thoughts. He was at the time ignorant of his own existence, he was not conscious of mental action; that action did not require his personality; it was not an operation of mind on any thing material, either directly or by memory, and consequently, he had no possible means of recognising himself; the memory was of immaterial thoughts only, and matter was as if unknown. This, the fourteenth peculiarity, causes singular effects in the mental operations during sleep.

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* *Essay on Superstition*, by W. Newnham, Esq.

The belief of our personal identity is founded on an essential principle of nature. The identity of neither mind or body is susceptible of proof.

The body remains apparently the same in its structure, although the particles of which it is composed are constantly suffering change. The digestion and the circulation continue to operate, and yet at a period of time not very remote, no one particle will remain of the former structure. There is a difference between the active and the passive, between the power which is the cause, and the material substance, or the effect which that power, the life, produces. This power continues while the particles of matter are incessantly changing; it is the transmuter of the material structure, and is itself constant; the body is the changing substance. Therefore, the identity is in the principle of life, not in the atoms which compose the fabric. We may suppose this identity to exist without any exhibition of the presence of mind; it is the identity caused by life, a bodily identity. Since we consist of body and mind, personal identity is both a bodily and a mental identity; perfect identity could not be imagined devoid of either the bodily or the mental identity.

The individual mind, it has been said, can only be defined to be a compound of ideas; this is all we can know of any mind*. But these ideas are incessantly undergoing change; memory is imperfect, and ideas are lost. Sensation and reflection continue to act, and new ideas are formed; thus is the mind incessantly changing. But there is a substratum which is permanent, the life of the mind—a *vis mentis*,—an unknown power producing a known mental action; this is the real, although the unknown mind, and in this is the mental identity. Destroy the memory of the past, and the mental life remains the same. Destroy sensation, yet the memory could act, and the vast powers of reflection be invigorated. Thus even from the little we know of mind, obscure as that knowledge is, it can be conceived to exist independently of material structure. That the mind has a substance of its own, is probable from analogy. But both these principles being unknown, personal identity cannot be proved. Thus is the principle of life the cause of bodily identity, and the principle of mind that of mental identity. The principle of life may be identical with the principle of thought. Consciousness of personal identity is altogether distinct from real identity; and hence arises the difficulty which some have supposed to surround this question. The doctrine of Mr. Locke†, certainly obscurely expressed, has been called in question by ethical writers, because he considers identity to arise from consciousness: that is, from memory, and knowledge of present mental action. That a man, bodily and mentally, should always be the same individual man, is his real identity; but that he should be to himself the same individual man, does not follow; because if at any period of his past life he does not remember the transactions of that time, the events in which he was an agent; that period is, to him, as if it had never been, and as if he had not then existed. Hence a real identity, and the individual consciousness of that identity, are distinct; the existence of one is not dependent on the existence of the other. But when we speak of identity, we mean that identity of which we are conscious —a practical, not a metaphysical identity,—and consequently, the identity of which alone we have any notion, is the identity produced by consciousness.

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* Mens cujusque is est quisque.—CICERO.

† Vide Note H.

Mr. Locke proposes the question in these words: "Whether the same self, or person, be the same identical substance?" He defines person, "a thinking, intelligent being"—and personal identity, "the sameness of a rational being."

"That there is something, undoubtedly, which thinks," says Lord Shaftesbury, "our very doubt itself and scrupulous thought evinces. But in what subject that thought resides, and how that subject is continued one and the same, so as to answer constantly to the supposed train of thoughts or reflections, which seem to run so harmoniously through a long course of life, with the same relation still to one single and self-same person, this is not a matter so easily or hastily decided by those who are nice self-examiners, or searchers after truth and certainty*."

The following is an extract from BISHOP BUTLER'S *Dissertation on Personal Identity:*

"Now, when it is asked wherein personal identity consists, the answer should be the same as if it were asked, wherein consists similitude or equality?—that all attempts to define would but perplex it. Yet there is no difficulty at all in ascertaining the idea; for as upon two triangles being compared or viewed together, there arises to the mind the idea of similitude; or upon twice two and four, the idea of equality; so likewise, upon comparing the consciousness of one's self, or one's own existence, in any two moments, there as immediately arises to the mind the idea of personal identity."

Very nearly the same opinion might be thus stated: if we observe an object at any two different moments of time, we are involuntarily conscious that the object seen is either the same, or a different object to that we saw before, at perhaps only a moment of time previously; this thought is inseparable from such an act of contemplation of any object. The same operation of mind will occur, when we compare two ideas.

If, then, we cannot think comparatively on any object, or even thought itself, without this conviction of identity or diversity; it is evident the knowledge of our personal identity is included in this notion of sameness and diversity: because the unity of that which perceives similarity or diversity, is necessarily presupposed. To analyze the idea further is impossible; "for it is ridiculous to attempt to prove the truth of those perceptions, whose truth we can no otherwise prove than by other perceptions of exactly the same kind with them, and which there is just the same ground to suspect; or to attempt to prove the truth of our faculties, which can no otherwise be proved than by the use or means of those very suspected faculties themselves*."

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* *Characteristics.*

SECTION VII.

THE MEDIUM BETWEEN MIND AND BODY.

If man is in his nature a compound creature, formed of a destructible body, and an indestructible mind; it is evident the body could not be subjected to the influence of the mind unless it possessed some medium of communication, or some common element.

We have an internal consciousness that the brain is the medium through which mind communicates with the body, receiving external impressions, and giving impulse and direction to corporeal movements; that the brain is the organ by which we perform mental operations.

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* Butler.

"But whatever be the real state of the case,—whether the brain act as a simple organ by the simultaneous operation of all its parts; or whether those parts act independently in the production of specific effects,—no one can doubt that the organ itself is the mysterious instrument by means of which, principally, if not exclusively, a communication is maintained between the external world and the soul*."

It is not so obvious that the brain should have certain portions adapted to produce certain effects. When any material substance is to be adapted to produce differing results, a diversity is to be remarked in the material substances employed. If we observe the arm, the hand, and the fingers, it is at once evident that they are adapted for various purposes; and also, that in their combination the effect is to be accumulative; but yet each may have its peculiar office. So it might be anticipated that the brain should present (which it does not) an altered structure in its various parts. Is it then probable that the mind acts on various and individual parts of the brain to produce differing results? Would it not be a more plausible theory, that the connection between the brain and the mind should be by a general system of vibrations, and not by vibrations in particular parts of the brainular substance? The vibratory theory has always been a favourite one, and justly; because a change from one state of mind to another, caused by varying conditions of body, (as in sensation,) cannot be be imagined to take place, without a corresponding change in the medium connecting the material and immaterial principles; and this cannot be supposed possible without motion, and by no species of motion so easily as by vibrations. These might take place simultaneously, and be extended through the entire mass of the brain. Vibrations of different kinds, and in different planes, might produce (which is equally probable with the other theory) the various species of thought. These vibrations might be in straight lines, (as radii,) in spirals, or other curves of any and all species. Or instead of vibrations, it might be by any mode in which motion could be produced in the ultimate atoms. If any change takes place in the brain, it is most probable that it is not a partial alteration, but a general and simultaneous change. The brain of all substances seems less likely to be capable, from its nature, of vibrating in any manner, whether partially or simultaneously, in its entire substance. But this assumption of the partial action of the brain is a favourite theory, especially with medical persons, by which to explain all the difficulties of mental action. Yet it is but a mere assertion, and with every probability against it.

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* Dr. Kidd, Second *Bridgewater Treatise.*

"It would seem that, with certain reservations, the true explanation of visions, apparitions, ecstacies, dreams and hallucinations, is to be found in the inordinate action of certain cerebral organs, during the repose or sleep of their opposite or antagonizing organs; or, in a word, is a veritable sleep of judgment, comparison, and appreciation; while imagination, invention, and combination are unrestrained, active, and intensely re-excited."

And again: "The peculiarities of dreaming arise from the partial operation of the causes of disturbance, and some of the sensative parts of the brain being capable of excitement without disturbing others; and thus it is, that the more near we are to awaking, the more rational our dreams become; all parts of the brain beginning to partake of the excitement; which has given rise to the adage, that morning dreams are true*."

It appears difficult to avoid the conclusion, that some subtile and ethereal medium exists, by means of which the material and immaterial natures are caused to act in unison. Whether or no electricity, in its various forms, is the receptacle of that medium, or that mesmerism approaches still nearer to it, is but useless conjecture. But it cannot be disputed the last mentioned cause (for undoubtedly, strange effects are produced by something,) brings us acquainted with a new and mysterious nature. The supposition of a medium connecting the material, the immaterial, and the supreme power, is a notion of great antiquity. It is a supposition which appears very consonant to natural feeling, and the idea pervades even the remotest philosophy. The ancients frequently allude to a mysterious union of distinct natures*. The theory of Malbranche is but an extension of nearly the same idea—of this very doctrine. His hypothesis was—we do not perceive objects themselves, but the ideas of them which are in God. He asserts, it is absolutely necessary that God should have in himself the ideas of all the beings he has created, since otherwise he could not have produced them; and that God is united to our soul by his presence, so that he may be said to have to the mind that relation of place which space has to body. Wherever the human mind is, there is God; and consequently, all the ideas which are in God He thus considered ideas to be existences distinct from the percipient mind—distinct from perception; not the mind affected in a certain manner, but something separate and independent of the mind.

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* Dr. Philip, *Philosophical Transactions.*

To condemn as absurd, that of which we are ignorant, is to assert that to exist which does not exist; for it assumes the existence of a perfect knowledge of that we condemn; a knowledge without which the absurdity of any new theory could not be proved; and yet this knowledge is not possible in a newly discovered principle.

Every new theory of importance has been opposed,—whether as relating to the general and most widely extended principles of nature,—or only to the simple adaptations of detail: from the Copernican system to the circulation of the blood. But every succeeding year unfolds more marvels of the natural system, and believers in these marvels are sometimes, indeed often, less absurd than the disbelievers, or even than the doubters*.

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* Aratus (quoted by St. Paul) and other poets and philosophers of Greece allude to this doctrine.
"Jupiter est quodcumque vides quocumque moveris."—CATO.

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* See Note I.

CHAPTER VIII.

VARIOUS OPINIONS CONCERNING THE NATURE OF MIND AND INSTINCT.

SECTION I.

MATTER, defined by its most cognisable general property, is "that which has limited and impenetrable extension." This is a definition made possible by the sensation of touch. But if that sense did not exist, colour might be taken for the characteristic, or assumed essence of matter. Extension cannot be determined by the sight alone; it would only be colour. This apparent greater or less generality of properties in matter, has caused the division of primary and secondary qualities. A definition, once determined upon, should be maintained; the best being the most accurate, and the most general. Touch appears to bring us the nearest in contact with matter, but even then a medium is interposed. We cannot imagine a visible object devoid of colour, nor can we imagine matter to be tangible, and yet invisible. But matter may be so subdivided as to be perceptible only by the senses of smell or taste; the other senses not being affected.

The terms material and immaterial are used to express the nature of the two utterly dissimilar existences with which we are conversant. Matter possesses certain properties called material; and mind, certain other properties called immaterial. Evidently the material and the immaterial are totally distinct, and cannot, as they appear to us, have any properties in common; — yet it is simply of the known properties, of which any assumptions can be made. If the so-called material were all the properties possessed by matter, and the so-called immaterial, all the properties of mind, (which cannot be asserted, since we have only a limited knowledge,) then it would be a true conclusion, that matter and mind are essentially different. But it can only be asserted of matter and mind, that apparently they are utterly dissimilar. Some matter might have properties which, if compared with other forms of a material nature, would appear to be as dissimilar to them, as mind itself is to an extended and impenetrable material substance.

We are evidently conscious of many forms of matter which influence the senses in various manners, and in some instances so obscurely as with difficulty to be recognised as matter. We also know that matter possesses properties extremely distinct, and thought might be imagined, the operation of some subtile form of matter, cognizable only by an internal mental sense*.

Mind may be imagined to be a part of a great system, having links of connection with the other parts of the same system, yet dissimilar to those parts. It would not be an assumption contradictory to the analogy of nature, to suppose the mind to have certain links of connection with matter acting not as an immaterial acting on a material substance, and that by direct contact—but as if by a series of media, thought itself being an action of the most remote.

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* A medical writer curiously defines thought to be a *secretion.*

This assumption of various species of matter, would be in accordance with the uniformity and simplicity of nature, in construction and operation. No hiatus is to be observed in the natural system; but a series of gradations, which are apparently — not essentially different from each other. The boundary cannot be determined which separates the material from the immaterial. Reason can neither prove the immateriality of mind, or even the reality of matter.

Our knowledge is so limited, and our powers of acquiring an insight of the subtile qualities of nature so strictly guarded, that we can only reason upon things as we find them; as they appear to us, not upon any fancied attributes which cannot be proved by a direct process. The perfect knowledge of any substance, includes the knowledge of its essence; but an imperfect knowledge, may be deficient on that very point which contains the essence. Hence, when knowledge is imperfect, the assumed essence of any thing, may be only an imaginary existence.

"By essence is understood the nature of anything, whether it be actually existing or not*." The essence of anything is, "that which makes it to be what it is†." If, therefore, it be deprived of its essence, or any part of it, it no longer exists as it was. "This essence is not really existing; but is an imaginary nature‡."

The purely material has all the known properties of matter. All substances, entirely material, must possess similar properties. But some matter exists in forms which do not influence the senses in the same manner as the truly material. Thus a semi-material substance is within the bounds of possibility: a substance possessing some material properties, and causing sensation, but possessing other properties totally distinct. It is even possible to imagine the existence of a substance having only one material property. Matter is not necessarily limited to one form. Had we an additional sense, new and now unknown, material properties might be discovered. The perception of some forms, or species of matter, is limited to one or two senses, and matter may possibly exist which does *not* affect the senses. Our knowledge of material properties may be very restricted.

If matter exists in forms which are not cognizable by the senses like other forms of matter, then it is possible, there is an unknown species of matter possessing qualities differing greatly from all other substances. We know of the existence of substances differing totally from all others, which are not perceptible by sensation, except under certain conditions; and other substances, now unknown, (as once were some of these,) and even unsuspected to exist, may be hereafter discovered. If then matter is known to exist in forms often imperceptible by us, and to possess properties utterly dissimilar to any of the other known properties of matter, why may it not be supposed, that a substance exists having a still less similarity to matter, as ordinarily constituted, and possessing properties still more dissimilar?

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* Huyshe. † Locke. ‡ Huyshe.

The ideas we form of the properties of the material, and the immaterial, are not always perfectly distinct. It cannot be assumed that entity is only two-fold, matter and mind; for then, that which is not material, would be mental. It is not easy to determine where the material nature ends, and the immaterial begins. If only that which is cognizable by the senses (all, or even one of them,) be termed material, then would be space immaterial, and a property of mind*.

So little is known of mind, and indeed of the ultimate and essential nature of anything, that even thought cannot be asserted to be separable from extension. It cannot be asserted that body and mind are "essentially divided, though not locally distant*." If it be supposed that body receives; and mind perceives sensation, and that body and mind are united by a medium, receiving impressions from the one, and transmitting them to the other, it is possible they may be locally distant; for since the medium is unknown, it may not be limited to distance, but may have an unlimited extension; and the material body might be in one planet, while the immaterial mind was in another.

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* See Note K.

Whenever experience, the true and only boundary by which hypothesis should always be restrained, is rejected as the moderator of fancy, the wildest conjectures become plausible. Chimerical as these suppositions may appear they are equally probable, from analogy, with the commonly received opinion of the existence of two distinct natures, the material, and the immaterial. Imagination may attempt to comprehend immateriality, and may embody mind in a different corporeity; but the idea will always be of material origin.

It is equally difficult to imagine mind joined to matter, and mind disjoined from matter: it is not more possible to imagine that mind and matter are two utterly dissimilar existences, intimately connected in one substance; than to suppose them to form parts of one system, or even to be but variations of one common essence. It is evident all conjectures on the essential nature of mind are utterly hopeless,

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[*] Glanville.

and all attempts futile to solve a problem for which we have no sufficient data; on the contrary, there is sufficient evidence to prove that it is a question far beyond the reach of human intellect; for this reason we cannot affirm any one dogma on the question, much less draw conclusions from any such assumption.

Matter and mind are parts of the same design—of a system of boundless creation, which cannot be comprehended; a material and a mental structure, in which one is adapted to the other, the body a receptacle of thought, the mind a thinking substance, but yet "the mind of the body*."

It may be said, "If mind be conceived to be a species or quality of matter, then only a certain disposition or arrangement of matter constitutes mind: and this would be contrary to all the ordinary dispositions of matter, for why should one arrangement only produce mind?"

"If it be said that mind is matter, or a quality of matter, it is to say that mind is hard, divisible and extended. If a quality of peculiarly arranged matter, it is to say that the whole is different from all the separate parts of a whole; and that which gives the impression of a simple and undivisible nature, is affirmed to be a form of that which is infinitely divisible."

"Suppose the smallest imaginable particle of matter, indued with consciousness or thought, yet, by the power of God, this particle may be divided into two distinct parts; and then what will naturally and consequently become of its power of thinking*?"

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* Mens Corporis.

"There is no other instance in which the combination of certain elements produces something quite different, not only from each of the simple ingredients, but also different from the whole compound. It is altogether an operation, or a combination, peculiar and unexampled. How, it may be asked, can matter produce thinking?"

Again, "The mind has the power of producing effects upon itself and upon other minds: it is susceptible of impressions and influence from other minds, from matter, from itself. But matter cannot produce an effect upon itself."

To these observations it may be said: "It is only a certain arrangement of matter which is wanted to produce mind." The mind cannot cause its own action†; but receives it from external circumstances or suggestions, as matter receives motion from a motive power.

The change of ideas existing in the mind by acquisition and loss, is analogous to the change of the component parts of the bodily structure.

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* CUMBERLAND, *Law of Nature.*

† It was the opinion of the Greek philosophers, that if a thinking being could give himself an idea he would increase his existence. They supposed ideas were received, not created by the mind.

It may be that many ideas remain permanent in the mind, although apparently they cannot be remembered; because, in all probability, if certain other ideas were recalled, those forgotten could be remembered: therefore a possibility exists of remembering, under certain conditions, all ideas. An idea formed ten years since, might, when remembered, recall another idea formed ten years previously to itself. Thus there appears to be no limit to the power of memory, and consequently, it may be, that no mental action can be utterly annihilated. Also, an idea may be combined with another, and co-exist with it, forming a new idea by combination. This idea would not be lost, but transferred or transformed.

The supposition of the eternity of mind, would not be rendered impossible, even if it were assumed to be material. Matter must be to our apprehension eternal; for it is not possible to imagine how any thing which exists can be destroyed. But it is inconceivable that the mind should suffer annihilation, even if it were but a quality of matter, for it would be a marvellous defect in the general design of nature, that the power of thought, the *chef d'œuvre* of the system, should be destroyed.

"Perhaps we shall never be capable of knowing whether a material being thinks or not; for this reason, that it is impossible for us to discover by the contemplation of our own ideas, without revelation, whether God has not given to some portion of matter disposed as he thinks fit, the power of perceiving and thinking: or whether he has joined and united to matter, so disposed, an immaterial and thinking substance. For with regard to our notions, it is no less easy for us to conceive that God can, if he pleases, add to an idea of matter the faculty of thinking, than to comprehend that he joins to it another substance with the faculty of thinking; since we know not in what thought consists, nor to what kind of substance this all-powerful Being has thought fit to grant this power, which could be created only by virtue of the good will and pleasure of the Creator. I do not see that there is any contradiction in God—that thinking, eternal, and all-powerful Being—giving, if he wills it, certain degrees of feeling, perception, and thought, to certain portions of matter, created and insensible, which he joins together as he thinks fit*."

These metaphysical speculations do not affect the conduct of life, whatever system is believed, it is in no way hurtful to morality. Whether mind be an immaterial substance, or only a material quality, the natural system remains unaltered; the intellectual and the moral nature are still parts of that system, the evidence of an immortal state is as distinct, and the duties of morality as clearly enforced, whether materialism or immaterialism be the essential of our belief.

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* LOCKE.

A material nature must always be a restraint upon the development of mind. The intellect can exert its powers only on that which arrives to it by the channel of sensation; and it is astounding to reflect, that this mind should yet possess power to reach far beyond the narrow boundary which limits the causes of that wonderful activity. That the mind, by the medium of sensation, should extend itself through space to an incalculable distance is beyond our comprehension, even when science has shown the principles by which that effect is produced on the optic nerve; for why does a certain condition of the nerve produce thought? The nature of sensation is difficult to understand, and the power of that mind which receives the idea by the material medium is utterly incomprehensible. Thoughts of the material creation in its boundless extent,—of space and time, unlimited and eternal,—are sublime, even from their obscurity. But infinitely more sublime is the vague thought of that mind, whose nature, so subtile and mysterious, is adapted to the minutest and most trivial event of this earth, and yet can penetrate the depths of space, trace the course and calculate the velocity of worlds as they roll in their distant orbits, invisible to the eye, or but dimly seen by the telescope. Then imagine mind extended to its utmost power, penetrating all things, comprehending them in time present, past, and future, and reason fails,—even imagination is unable to grasp the idea, for these are the attributes of Divinity.

So completely is the mind subjected to the body, that thought cannot commence prior to sensation. Even if the mind were conscious of its latent powers, memory never having acted, that consciousness, though continued and constantly acting, could not be other than a present momentary consciousness: hence, although that conscious mind had endured for ages, it would be to itself unknown but as the existence of the moment of present time. Matter and mind are so intimately connected, that the powerful effects of one on the other are marvellous and inexplicable: they appear dissimilar, yet they are as one. The union is mysterious: material, human, yet as if "torn from the divine essence*." Man, godlike in intellect, heavenly in religious and moral sentiment—a demon in passions, and only the very dust of the ground he treads, in his material substance.

D'Alembert, in treating of the nature of the human mind, and its strange compound of strength and imbecility, thus writes: "That it should be restrained by the circle which nature has traced around it; yet always conscious that beyond this narrow limit is knowledge never to be attained." "That it should have power to reflect on the nature of those things beyond its reach; and yet always be ignorant of them." "That this intellect should be unable to answer, but yet possess sagacity to ask, innumerable questions." "That the thinking principle should seek to know what constitutes thought." "That the mind, which apprehends matters remote and obscure, should be unable to know itself; that self, which it is, notwithstanding, always striving to see and to know—these are anomalies which cannot but perplex and astound; contradictions, which, even in the very pride of our reasoning, cannot fail to surprise and confound us."

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* Epictetus.

The mind without ideas is but a chaotic existence, unconscious and void of thought; a power mighty indeed; but inert, fettered, latent:—until sensation, the first light of thought, breaking in on its unconsciousness, reveals untried powers by arousing them to activity and conscious life. The material nature broods over the dark mental chaos, and eternal light, for it is light which can never be extinguished, dawns on that sublime mystery, the human mind.

SECTION II.

The ancients could not imagine either creation or annihilation*, and consequently supposed both matter and mind to be eternal, never created, never destroyed:—if there is a necessity for the existence of all things, to-day, there was one yesterday, if then at all times: thus all change, except in form, is impossible; existence in some form must continue for ever.

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* "De nihilo nihil, in nihilum nil posse reverti."
PERSIUS *Sat.*

The Egyptians were the first who made a distinction between the intelligence and the soul, and the Greeks learned from them to distinguish the *νους* and the *πνευμα*. The Latins, after the example of the Greeks, distinguished animus and anima.

The Platonists held that learning was only recollection; a loss of memory, a total oblivion of the past was essential to this doctrine. This fancy was a necessary conclusion from their peculiar assumption of the pre-existence of the soul, for they considered it evident from the impossibility of their imagining creation or annihilation,—the soul had always existed, that it had never been created, and could never be destroyed. The soul was supposed to be always annexed to a body, sometimes to one, sometimes to another. It was the Platonic doctrine, that the soul was in the body, and the intellect in the soul. Also, that a part of the soul survived the body for a time, and partook of its nature and appearance. That human nature was threefold, body, soul, and mind: *σωμα*, *ψυχη*, *νους*: the *νους* was the immortal part. The *ψυχη* was mortal and passive, a receptacle for the *νους*, both during life and in a kind of transition state, the period previous to transmigration.

In this state they were supposed to dwell in the purlieus of the grave, and to linger among the dead; they were often to be seen (so it was said) wandering in melancholy mood among the tombs: they haunted the cemeteries.

Aristotle in the treatise *De Animâ*, thus writes:

"Those therefore rightly hold who think that the soul cannot exist without the body, and yet that it is not body; it is not the body, but somewhat of the body."

Again, "The soul is the substance of some kind of body*."

Thomas Aquinas† admits three elements. St. Iræneus ‡ says that the soul retains the human figure that it may be recognised. So also Tertullian§ and St. Hilary||. "There is nothing created which is not corporeal. We neither know how we receive life, nor how we continue to live."

Tatian¶ writes, "The soul is evidently composed of a body." Tertullian**, that "It is a body." Arnobius, Lactantius, Hilary, Gregory of Nyssa, and Ambrose, express the same opinion.

The following extract gives the opinion of Leibnitz:—

"The soul never quits completely the body with which it is united, nor does it pass from one body to another with which it had no previous connection. A metamorphosis takes place, but there is no metempsychosis."—*Enc. Brit. Prel. Diss.*

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* Ἡ γαρ ψυχη ουσια σωματος τινος εστι.

† Book v., ch. 7.

‡ Book ii., ch. 26.

§ De Animâ.

|| St. Matthew.

¶ Discourse to the Greeks.

** Treatise on the Soul.

SECTION III.

Instinct may be assumed to be either a quality of matter, or a species of mind. If, on either of these suppositions, instinct be defined, "an impulse directing action according to an invariable rule;" and mind, "an impulse directing action according to a rule admitting of variation;" then the distinctive mark of instinct will be "the absence of choice." Evidently no third definition can be made; for it would be included in one of these. No other definition is possible between the two. It matters not if instinct be a quality of matter or a species of mind, the definition equally applies.

If an animal acts in the same manner at all times, and under all circumstances, and without indecision,—then it may be assumed that instinct is different to mind; but if the animal does not act by an invariable rule, if at any time previously to acting it shows indecision, that variation from the common laws of its action implies choice; it presupposes conflicting desires and an exercise of will. If, again, the animal always acts without indecision, but not constantly in accordance with the same rule of operation, instinct may then also be different to mind, because the animal may possibly always act in the same manner under similar circumstances;—the instinct and certain external conditions come into juxta-position, and the same effect constantly ensues. Animals give abundant evidence of an exercise of will, and this alone proves that they possess a species of reason very similar to our own; they give evidence of the same general construction of thought. The instinct acts on the body apparently by the same kind of nervous apparatus as does the mind.

It would be difficult to prove that instinct and mind were essentially distinct. The only difference in adaptation is the instantaneous perfection of the animal instinct, or mind. The insect commences life with a perfect instinct; in the higher order of animals the instinct becomes more or less rapidly perfected with the bodily structure. This necessary adaptation is contrary to that which prevails with the human race. In all animals the instinct is eventually perfect, and no difference of capability is to be observed between different individuals of the same species. Domestic animals may perhaps be excepted from this rule; they are not in a state of nature, and require not the aid of a perfect instinct. Animals are susceptible of instinctal improvement, especially domestic animals. Some appear to possess both an intellectual and a moral instinct. Examples of the extraordinary power of instinct might be mentioned without end, especially of the dog, of all animals the most sagacious; the subject is, however, so interesting, that a few remarks may not be considered tedious. Indeed, the facts connected with any part of the *systema naturæ*, are far more instructive than the hypotheses or vagaries of metaphysics. The following instance of reasoning instinct is a near approximation to intellect; it combines a great number of what may be justly termed ideas.

In Von Wrangel's *Expedition to the Polar Sea*, the following singular instance of sagacious instinct is mentioned: "The dogs intended for draught, are not used for long journeys until their third year. Much skill is required in driving and guiding them; the best trained dogs are used as leaders, and no pains are spared in their education, so that they may always obey their master's voice, and not be tempted from their course when they come on the scent of game. This last is a point of great difficulty. Sometimes the whole team in such cases will start off, and no endeavours on the part of the driver can stop them. On such occasions we have sometimes had to admire the cleverness with which the well-trained leader endeavours to turn the other dogs from their pursuit: if *other* devices fail, *he will suddenly wheel round, and by barking as if he had come on a new scent, try to induce the other dogs to follow him.*"

The dog appears to be influenced by the following instincts, or thoughts: he knows the direction in which he is to go; that the others are going in a wrong direction; that they are on a scent; were diverted by that scent; that they will follow another scent, and him as a leader; knows there is no new scent; affects to find one; dissimulates, invents, tries to compel the others to follow him; simulates that the scent is in the direction of the proper track;

anticipates keeping them in the original and required direction.

The Canadian, overtaken by a storm in the middle of an extensive plain, and ignorant of the direction of his home; the path leading to it covered in many parts perhaps with ten or twelve feet of snow, and the atmosphere so filled with drift, as to render it impossible for him to see even the foremost of his three dogs,—throws himself on his sledge, and calling to the animals to advance, leaves it entirely to them to determine what direction they shall take. The dogs drag the sledge about in all directions until they recover the true path; then barking with delight, they bound over the slender crust of snow almost with the rapidity of the snow-drift itself, and at last bring their master to his own fort, or to the friendly tents of some neighbouring Indians. Although the storm seldom lasts long, and fair weather invariably succeeds; there may be more difficulties to encounter than it would be expedient to attempt only to save a short period of time;—the traveller rolls himself in his buffalo skin, and with his gun by his side, lies down *deep* among the snow. Mr. Sloan describes this manner of reposing. "The snow may be converted into a safe, warm and comfortable bed, when the thermometer is many degrees below zero, and when to sleep on its surface would be followed by immediate and certain death, from the effects of the intensely cold and penetrating wind." The dogs come and stretch themselves upon their master;

the whole party are soon asleep. "And in such a resting-place, many besides myself," says Mr. Sloan, in feeling and eloquent language, "have spent a solitary, yet comfortable night, in the neighbourhood of wolves, with many miles between us and any other human beings, and risen the next morning with health and strength to proceed on our journey, and to offer our thanks to a watchful Providence, who had not only protected us during the night, but who had led us back in our *dreams* to our distant country and homes; and who had surrounded us, while thus sleeping on our snowy couch, with the forms of the friends and companions most deserving of our love*."

In Rome, one of the most esteemed among statues was that of a dog, executed in bronze with such miraculous perfection, as to call forth the approbation of Pliny†, who considered it to be the finest piece of cast sculpture in Rome, while the Laocoon, of the palace of Titus, was its equal in carved work. Homer speaks of the fidelity and acuteness of the old dog Argus, who alone recognised Ulysses, at his return, after twenty years' absence; and the faithful creature died from excessive joy at the sight of his long lost master. This event is recorded by ancient artists, on some *bassi rilievi,* which represent Ulysses imposing silence upon Eurymachus; and on medals of Ithaca, and of the Memnian family.

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* At the French Academy of Sciences, (March, 1843,) M. Arago read a communication on the warmth imparted to the earth by a covering of snow, and respecting which there has hitherto been much scepticism. M. Arago stated that M. Boussingault had ascertained the truth of the theory beyond the possibility of doubt, during the past winter. He found that a thermometer plunged in snow to the depth of a decimetre, (about four inches,) sometimes marked nine degrees of heat greater than at the surface.

† Lib. xxxiv., cap. 7.

The Egyptians appear to have attributed peculiar sagacity to the canine species; they united the head of the dog to the body of a man, in their statues of Osiris; and to the bodies of apes, in their Cynocephali, under which form they worshipped their god Anubis, the son of Osiris, the Egyptian Mercury, who was hence called by Virgil and Ovid, Latrator, by Plutarch, Hermanubis, and by Lucan, Semicanis Deus.

As with mind, so with instinct, its operations and adaptations are all that can be investigated. The mind of the animal is as accurately adapted to its nature, as the mind of man to the world in which he is placed, and the duties he has to perform. Mind and instinct are so similar, that it is impossible to define them distinctively; for this question, like all others respecting the nature of mind, is involved in obscurity; the effects of the unknown power, and its adaptations, can alone be the subjects of investigation; for instance this definition:

"The instincts of animals are nothing more than inert or passive attractions, derived from the power of sensation; and the instinctive operations of animals nothing more than crystallizations produced through the agency of that power*."

The following definition is erroneous :—" Instinct is a natural impulse to certain actions which animals perform without deliberation, and without having any end in view, and without knowing why they do it*."

It cannot be assumed that animals do not deliberate, or that they know not why they act; it assumes a knowledge of what cannot be within the limits of inquiry—and the evidence which experience gives is directly contrary to this definition.

Paley's definition is probably correct:—"An instinct is a propensity prior to experience, and independent of instruction."

Could we accurately define mind, we might also be enabled to define instinct. But any attempt to define with accuracy a principle, of the real nature of which we are ignorant, usually leaves us in a state of greater darkness than we were before.

Reason cannot draw a line of demarcation between mind and instinct. Thus every argument for the immortality of the mind is applicable to that of instinct. A question may be asked,—" Is it probable that the animal creation will exist in a future state? Are they susceptible of recompense?" If the future world will have any resemblance to the present,—and analogy would show it will have a great resemblance,—are its only inhabitants to be the revivified defunct of the human race of this world? Will all animals be excluded? It is a supposition by no means unreasonably fanciful, that the animal creation may also exist in another form of life. If a fallen nature has extended to them, are they not to have recompense in a different state of existence? These suppositions are not over-fanciful, and the almost identity of mind and instinct renders objections to them nearly futile. Whether a being purely material thinks or not, is beyond proof; it is a question which cannot be answered. Instinct may be a quality of matter; mind, an immaterial principle joined to matter. But instinct and mind are so closely related, that it is extremely difficult to deny to one, what is admitted for the other. It is not necessary, moreover, to assume immortality to be an attribute of every immaterial principle. That which is only a quality, may be supposed destructible; that which is an essence, indestructible. Thus instinct might be assumed to be a material quality, and destructible, but the human mind immaterial and immortal.

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* Wenzel, *De Penitiori Structura Cerebri.*

† Beattie, *Moral Science.*

But there is nothing more mysterious in instinct than in any mental operation: every connection of one feeling or state of mind, with another feeling or state of mind, is mysterious, and cannot fail to be so regarded by every one who has learned to consider with accuracy, what is meant even by the most regular antecedents and consequents of the operations of nature. How then can we separate mind from instinct, or deny to one what we readily grant to the other*?

Instinct contains both intellect and a moral power, nor can these principles be thought separated from each other in any class of animals.

The insect, by an admirable contrivance, is susceptible of atmospherical changes (probably by the sensation of its antennæ,) and its instinct forewarns it of coming danger; it is a species of foresight, and perhaps involving two steps of reasoning; but the honey of a favourite flower overcomes the reasoning instinct—the passion is stronger than the intellect—and before the warning is heeded, and secure shelter gained, the storm has begun, and the insect is destroyed.

The poetical moralists, who liken man to butterflies and moths, have been nearer to the truth than they were probably aware. The mental process is too similar to our own to admit of doubt—it may be the unfortunate insect is guilty of a folly very nearly allied to that of numbers of the human race.

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* See Note L.

Chapter IX.

RECAPITULATION AND CONCLUSION.

SECTION I.

If we observe a sleeper, he appears to be devoid of all sensation: he neither hears, sees, nor exercises any one sense. Sometimes, indeed, the sight appears sensible to strong light; the touch* to cold and heat; and the hearing to penetrating sounds. But yet, in the great majority of instances, sensation cannot be excited during sleep; therefore, it is reasonable to conclude, that sleep is a state of insensation. If dreaming were not supposed to be the action of mind during sleep, it would be difficult to assign any rational cause. Therefore, dreaming may be assumed to be the action of mind in an insensative state.

If the change from a sensative to an insensative state be gradual, then a third state will be natural to the mind,—a period of transition,—during which the mental action will partake of the characteristics both of a sensative, and an insensative action. In one state, the mind receives ideas both by sensation and memory; in the other, by memory alone; in the intermediate state, by memory and partial sensation. Therefore, if the mental action of the sensative state be known, and also the influence and operation of sensation, the mental action in the other states may also be known; for they will differ from the first only by the partial or total absence of sensation. Then assuming the mental action of the sensative state to be known, the inquiry will be into the influence of sensation on the operations of mind. The total or partial absence of those influences, may cause differences in the mental action; and whatever those differences may be, they can only arise from the total or partial absence of sensation.

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* It may be doubted if the perception of heat and cold is caused by the sense of touch.

From the assumption of the absence of sensation during sleep, peculiarities in the mental action in the insensative state will necessarily arise; for it cannot be supposed that the mind should, in both conditions, produce the same effect as the result of its operations. These differences may be deduced from the known operations of the mind in the waking state, and the assumption of an insensative state. If the assumption be correct, the peculiarities which should arise from, and be the necessary consequences of that assumption, will correspond with those differences and peculiarities of dreams, which are known by experience, and which may be determined to be true or false, because they are but simple matters of fact; therefore, the practical knowledge of experience will be a sure test of the truth of the theory. These peculiarities may be considered, first, as influencing the mental action in sleep generally. This class includes the *rapidity* and the *vividness* of thought during sleep. The rapidity with which ideas pass through the mind, depends on the concentration of thought; and since during sleep the mental energies are concentrated on memory, because sensation is inactive, that faculty will be more energetic than at other times, and ideas reproduced in succession with unusual rapidity. The vividness of thought in sleep must necessarily be the result of the same cause as the preceding; for the greater the degree of concentration, the more intense and vivid are the ideas presented to the mind.

The second class of peculiarities are those which relate especially to ideas of *sensation,* and include the following: the apparent *reality* of the objects of sensation in sleep,—their *permanency,* their *composition,*—and the difference in the *remembrance* of sensations.

To take an example of one sense only,—vision. The objects of sight remembered in sleep appear to be real, and present. This is in consequence of the idea of the object seen, and the belief of its reality, co-existing at its formation, and consequently at its remembrance. These ideas have, in a great degree, the nature of real and immediate ideas of vision. They remain before the mental sight while the rapid current of thought flows on, and brings other visual objects before the mind, which are also represented in the same scene. The materialised ideas of sensation are accumulated in the mind; a new image being formed before the previous one has been obliterated. The deception of reality of the objects of sight remembered during sleep, is caused by the mind being in a similar state at the remembrance as at the formation of an idea; and consequently the same effects are produced in both states. If the ideas are of events, those events will seem to be really occuring, they will be as if events passing in the presence of the dreamer, and they may also be events in which the dreamer supposes himself an actor. Since any idea which previously to sleep has been formed in the mind, may be reproduced in the insensative state, there is no limit to the variety of the thoughts during sleep. When events, persons, or things, however impossible or incongruous, are thought of, they appear to be events (though several be thought of) simultaneously happening; and the persons or objects, however impossible their collocation, really present and seen by the sleeper. The permanency, and consequently the combination of the ideas of vision, may be caused solely by the nature of the ideas themselves; for since they will be (like real ideas of the sense of sight) vivid and intense, as compared with all other ideas, they may suggest themselves. Before one idea gives place to another, it may, by having suggested some idea connected with it, be itself suggested by that very idea, and thus for some time constitute a portion of the immediate action of the mind. The pictured representation, whatever may be the cause of its permanency, will suggest other ideas, because each component part of such picture may suggest ideas,—ideas intimately connected with those parts, and consequently easily reproduced by their supposed presence.

That the same material effects are produced in both states, and that the retina, or sensorium, is influenced, not only by the impulse of the material ether of light, but by the immaterial power of mind, can be, of course, only conjecture; but yet it would be difficult, if not impossible to decide, that some kind of reflex action could not take place. It is also difficult to imagine how, by any other process, the mind should be in the same state both at the formation of an idea of sensation, and at its remembrance. If the retina is influenced, then the nature of that affection may itself, without any other cause, produce the permanency described. The retina is known to be affected under peculiar circumstances, and yet without producing any mental act. Whatever is presented to the open eye is pictured on the retina; but the eye may remain open, and yet no idea be produced in the mind by the light impinging upon it. This appears to be sometimes the case with somnambulists; the eye is open, and consequently the objects before it are represented upon the retina, but no idea of sight is produced in the mind. It would seem, therefore, that the affection of the optic nerve is not sufficient of itself to cause the sensation of sight, but that a peculiar state of mind is also requisite to receive the sensation.

If, then, a distinct action appertains to the material and immaterial parts of the mental action, it may be said the connexion of the two is improbable in a reflex action. But it may not be true,—that an idea of vision remembered in sleep, may be unconnected with an affection of the retina, or sensorium. Another objection may be made. If in the sense of sight the material organ is influenced by the mind, so also should be the hearing and the other organs, or media of sense. But then it is not impossible this may be the case, and that from the comparative dulness of the media, these other sensations may not be perceptible in their reflex action. Also, it may be said, that some more sensitive medium may intervene between the retina, (or the other known channels of sensation) and the brain, or the immediate link of connexion between the body and the mind.

Perhaps the most probable cause of the permanency which undoubtedly belongs to visual remembrances in sleep, may be their intensity, in consequence of which they are continually re-suggested. It may be possible that the eye can both see real objects, and be at the same time the apparent cause of an imagined sensation of sight. Visions, it might be supposed, could be produced by the combination of imagination (by the memory of sensations) with the real perception of surrounding objects, which would thus give the greater degree of permanency caused by a sensative or a semi-sensative state*.

The ideas of the other senses are not so distinctly remembered, and are therefore less vividly represented in sleep. A peculiarity arises from this difference in the remembrance of sensations: a perplexity produced in the mind of the sleeper on a change taking place from one sense to another, in the action of the dream. From the varying nature of the remembrance of sensations during sleep, a change from things imagined to be seen, to those imagined to be heard; or from those supposed to be seen or heard, to those touched, tasted or smelt; will produce a feeling of perplexity in the mind of the sleeper: and this arises from the ideas of vision being more distinctly remembered than those of the other senses; and their remembrance is more distinct, because vision, by the action it excites, impresses with greater clearness the ideas formed†.

Hearing is the second in distinctness of remembrance, and then touch, taste, and smell. The sense of touch, however, appears to be the most indistinct, when remembered in sleep.

The third class is the peculiarities of ideas of *reflection.* These include simple ideas of reflection, —ideas of reflection immediately succeeding those of sensation,—and these last following ideas of reflection.

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* See Note M.

† Segnius irritant animos demissa per aurem,
Quam quæ sunt occulis subjecta fidelibus, et quæ
Ipse sibi tradit spectator.—HORACE.

The fourth class includes those affecting both species of thought. The separation of the ideas of sensation and reflection: this peculiarity is very complicated in its details; the two species of ideas are rapidly separated; those of sensation produce the scene and the actors of the dream, the last the thoughts which are supposed to emanate from the personæ of the hypnitic drama, and also the thoughts suggested by the imagined scenery. The singular deception of the mental vision, caused by the seeming reality of material objects thought of in sleep, adds greatly to the deception of reality of action, of the happening of events; it completely realizes the scene, the actors, and the drama of the dream. The peculiar perception of time in sleep, causes all events to be present actions, instead of remembrances; although sometimes an idea of one event is separated from others co-existing with it, and made to appear, consequently, in past time. Also the ideas forming the component parts of the dream, being remembered as old ideas; for they are sometimes perceived to be, what they really are,—remembrances,—the thoughts of past time. From this arises the possibility of knowing in sleep that the scenes are not real; of knowing, in fact, that we dream. Ideas of reflection of an abstract nature, present little or no apparent difference in their nature from those of the waking state, except in the astonishment they afterwards create by their great accuracy on subjects of thought which require attentive reasoning. This is, however, but the necessary result of undivided attention. The absence of sensation, and of all which can divert the mind from the ideas constituting its action, is alone sufficient to account for the exceeding accuracy of the results of the reasoning powers. Complex trains of ideas also occur; ideas of sensation arising out of those of reflection, or conversely; and these give rise to great complexity of thought. The ideas being almost simultaneous, are connected in the mind of the sleeper, however dissimilar the nature of the objects they represent, with the abstract ideas of reflection.

The tenth peculiarity produces very singular anomalies in sleep. The apparent absence of the will in many of the imagined events, increases these anomalies. The prevalence of the imagination in dreams, is the leading characteristic of the action of the insensative mind.

The vividness, reality, and rapidity of the scenes and events represented, frequently destroy all the memory of experience which might otherwise be suggested by the trains of thought. This has been well shown in the following passage from the *Philosophical Transactions*:—

"The mind of the dreamer differs from that of an infant in having a fund of ideas laid up in it, which may by various circumstances be partially recalled; but it resembles it in being in other respects void of the results of experience, and consequently, with the exception of this partial operation of experience, of the means of correcting the ideas excited in it. In general, there is neither time nor means for doubt or hesitation."

Indeed, such is the rapidity of our thoughts in dreaming, that a dream may be excited by the very noise that awakes us.

And again, "Our conceptions are unconnected by experience, and we are not at all surprised at the greatest incongruities. Why should we be surprised at our moving through the air, when we are not aware that we have not always done so*?"

SECTION II.

The two first peculiarities will cause surprise in the mind of the dreamer on waking, because the supposed events of a long period will appear to have passed in a very few minutes, perhaps moments, of time.

The next three peculiarities produce a wonderful deception in the mind; the scenes and events represented are so vivid as to produce a perfect deception; and yet sometimes the incongruities of the scene render the dream irreconcilable with reason and experience, and produce corresponding perplexity in the reasoning mind of the dreamer.

The next three peculiarities will strengthen the illusion of reality, because the mental action is so similar to that in the sensative state. The singular mental operation by which the trains of thought are separated into various and apparently unconnected ideas, and then attached to the several actors in the scene, will confirm, by the reasonableness they give to the mental operations in sleep, that delusion under which the mind labours, and render still more incomprehensible the anomalies caused by the other mental operations.

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* Dr. Philip.

The two next peculiarities will give rise to the greater number of the difficulties and perplexities so common in all dreams. They are the only apparent variations from the ordinary operations of the mind. The other peculiarities are so perfectly similar in their action to that of the sensative state, as to deceive the mind which imagines the dissimilar the ordinary mental action—the operations of the insensative, to be that of the sensative state.

The absence of any perception of time, will give rise to many intricate phenomena in the progress of a dream. It adds much to the intense vigor of the scenes and events represented, because it excludes almost entirely any perception of past time, thus causing all events to be represented with the energy of present action. The three last peculiarities are those which especially give the visionary and mysterious character to the mental operations of sleep*.

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* These peculiarities cannot be clearly explained (except in the abstract manner of the text) without examples. In the

SECTION III.

A case, the type of a numerous class of recorded dreams, may be assumed.

This hypothetical dream may be supposed to be a mental operation, exactly similar to another mental operation, in the sensative state. First of the train of thought in the waking state. Let the reader suppose that from the table at which he may be sitting he takes a book—one of the annuals—and opens it at a page where is the view of a continental town in which he has resided; he recognises the street in which he lived, he remembers the friends with whom he passed many pleasant hours. The drawing recalls to his recollection the adventures of his past life in foreign lands; the companion of his travels, the tour which they took together, the countries they passed through, the towns in which they resided, and the unexpected meeting with friends in remote and obscure retreats; the beauty and wildness of the scenery around them; these and many other recollections, may be brought distinctly to the mind of him, who, under such prior conditions, has the possibility of having reproduced to his present thoughts the scenes of a varied and active former life. And this which has occupied time in reading, may have passed through

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Appendix to this treatise numerous analyzed examples will be given, and the various peculiarities of the theory shown to be the real anomalies of the mental action when dreaming.

his mind with such rapidity, that the conversation in which it is possible he might have been engaged while looking at the representation, is not interrupted; it is the work of a moment of time; it is the rapidity of thought. This supposed train of ideas which has been described is of no uncommon occurrence, the experience of many would testify its truth.

Now to describe the mental action of the same train of ideas during sleep. Assuming the same ideas to arise in the mind (by whatever cause) during sleep, the places and persons—apparently realities—will appear to the dreamer in the same order in which the ideas arise in his mind. The buildings and the surrounding scenery of several places will be represented in one scene. If the idea of one place becomes more distinct than the rest, the scene will change, and that particular place will be clearly depicted, without the confused intermixture of other localities; it will be an accurate representation. The persons remembered will also have made their entry upon the scene, but possibly in localities in which they never were; also individuals will be associated together who never met. The ideas of the places remembered being more permanent from their intensity, (or whatever cause) will remain as realities before the mind's eye of the sleeper, while the other ideas of persons and events will be remembered in an ever-changing train of thought. Then suppose the idea which caused the remembrance of the friend of the dreamer, to become, by the greater force of its associations, more powerful than the other ideas of personal representation, then would that similitude be more distinct, while the other parts of the scene became obscure.

Let it be supposed that the sleeper is in a condition of body favourable for the dreaming state; imagine fever and indigestion, not to a degree of illness, but which, though slight, will suffice to give an intensity to the visions of sleep; add also the effects of local causes, as, for instance, a strained position of body, causing partial and uncertain sensation; and, to assist the indigestion, let the sleeper be supposed to have partaken of such food as the ancient interpreters of dreams would have prescribed; then, with all these inducements to dreaming, it would not be surprising the sleeper should imagine, when he awoke, that he had seen a vision; that which would, under ordinary circumstances, have been but a simple dream, will become, by the additional excitement of bodily ailment—fever, indigestion, and constrained position of the body, a dream so intensely vivid, so clearly developed in its visual objects, apparently so evident to the senses of the sleeper, as, on awaking, to impress him with the belief that he had seen, not the representation of a dream, but a supernatural appearance:—yet this was simply the operation of mind acting without receiving immediate ideas of perfect sensation—the body of the sleeper deprived (in part) of sensation, and the mind acting by memory.

If in this supposed case the friend of the dreamer had died at or about the same period, or even shortly after the occurrence of the dream, or if the intelligence of his death had arrived soon after, it might, by some persons, have been considered a prophetical vision. Now the probability of the coincidence is very small, but it is not impossible; and in the multitude of events such a coincidence might be anticipated to occur.

The possibility of a very remote thought, one in no way connected with the primary idea, being suggested by the ordinary operations of mind may be thus proved:—

Suppose an idea (*a*), by its great suggestive power, to have originated a dream, and caused the train of thought which composed that dream to arise in the mind.

Then assume the existence of another idea (*c*), which can easily suggest one of the thoughts (*b*) composing the dream. If the idea *c* is associated with, or easily suggested by, any idea or train of thought, when that idea or train of thought suggesting *c* arises in the mind, the connecting link, *b*, one of the ideas contained in the train of thought constituting the dream, may be suggested.

Since *a* and *b* are closely associated, (for as *a* originated the train of insensative thought, *b* must necessarily be easily suggested by *a*), *b* will readily suggest *a*: thus if the idea represented by *c* arise in the mind, it is not improbable that *c* may suggest *b*, and *b* suggest *a*, which idea originates the dream.

If any circumstance in the course of the day had formed the idea *c*, its recent formation might have caused it to arise in the mind during sleep. Then this idea *c*, suggesting *b*, which is associated with *a*, produces the train of thought constituting the dream. This assumed cause is the origin of a large class of dreams.

In conclusion, if the reader disbelieves any thing which has been advanced in this treatise, let him disprove it: if one, still more presumptuous, should consider the subject unworthy of investigation, or should doubt the main positions on which the reasoning has been based, he will have to contend with the almost universal opinion of metaphysicians; and if he should sarcastically imagine that the truth and certainty it contains, has but a small ratio to hypothesis—let him remember, that probably no treatise was ever written which did not merit condemnation in some particular; moreover, the difficulty of the subject must be taken into consideration. But if the reader should be disposed to give credence to all contained in this treatise, he will be more believing than the author, who doubts much more than he believes, of the conclusions formed,—because, when any subject requires acute analysis, and cannot be well investigated without the aid of hypothesis, it is unwise to determine upon any deduction, until candidly examined by opponents and advocates.

If but one principle laid down in this treatise, and which hitherto has not been satisfactorily proved, be considered established; one step at least will have been made in the advance of mental philosophy.

The uncertainty of conclusions on these subjects, requires the greatest caution in admitting the evidence of their truth; and the limited nature of our powers of observation, should always induce the most rigid analysis. "Were the capacities of our understandings well considered, the extent of our knowledge once discovered, and the horizon found, which sets the bounds between the enlightened and dark part of things,—between what is, and what is not comprehensible by us,—men would perhaps with less scruple acquiesce in the avowed ignorance of the one, and employ their thoughts and discourse with more advantage and satisfaction in the other*." But to those who object to the utility of these enquiries into the, apparently, more hidden principles of nature, from the difficulty of forming satisfactory conclusions, may be quoted the words of Seneca,—"Non putant fieri, quicquid facere non possunt. Ex infirmitate sua ferunt sententiam. Scis quare non possumus ista? Quia nos posse non credimus."

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* Locke.

NOTES.

NOTE A.

"WHEN ideas float in our mind, without any reflection or regard of the understanding, it is that which the French call *Resverie*."—LOCKE.

Since a variety of trains of thoughts occasion a conflict (as it were) between ideas, that idea which has the greatest suggesting power eventually directs the course of thought, and since the limitation of the trains of thought to one would prevent that conflict; it is a consequence, that, when the suggesting power of an idea is insufficient to give rise to any other idea than that which succeeds it, that the thoughts pass through the mind rapidly, and apparently unheeded; no idea is retained, no comparison made, there is no exercise of the will. This state would approach very nearly to that of dreaming; yet is evidently possible in the sensative state, for it does not depend on, or require the absence of sensation. This state has been called a waking dream, or resverie. From the simple consecutive nature of the thought in this case, the intellect, and what are termed the voluntary powers, are not in action; they depending, as it has been shown, on the control which the mind has, *apparently*, over itself, when several trains of thought are interchanging. Then events remembered may appear to us as really happening, and yet not excite (as in other cases they would do, even in sleep,) the slightest notion of impossibility, or even any deviation from the ordinary course of events.

An external material object excites the idea of sensation A.

The remembrance of that sensation produces the idea of memory B. Thus A and B are ideas of the same object. As they are ideas of different species, they may co-exist. The comparison between these ideas, which therefore is possible, causes them to be recognised as distinct ideas; they cannot be confounded with each other. But when only the idea B is in the mind, (in immediate action,) then the absence of comparison causes it to be mistaken for the idea A; that is, for a reality; because the idea is that of the memory of a material object. But if A was an idea of the imagination, and not the idea of a reality, its remembrance B would, notwithstanding, be apparently a reality; for although it is the memory of an imagination, and not of a reality, since that imagination is composed of visible objects, it will be, like every remembrance of a sensation in sleep, as if a present real sensation; therefore the remembrance B, of the idea A, will be as if a reality, and actually present. Yet at the same time, it may be to the mind as if only an imagination. We may thus dream that we imagine. The reasoning power, it has been already stated, can perceive in sleep that the scenes are not real, but this is a different process, and of a much more visionary nature. The musing character of a reverie is more easily induced by inactivity, uniform sound, and a state of monidea, or one-idea state. The same sound which is scarcely heard in the tumult of the day, is capable of affecting us powerfully if it recur in the calm of the night; not that it is then absolutely louder, but because it is no longer mingled with other sounds, and other sensations of various kinds, which render it weaker by co-existing with it.

"Do not choose your constant place of study by the finery of the prospects, or the most various and entertaining scenes of sensible things. Too much light, or a variety of objects which strike the eye or the ear, especially while they are ever in motion, or often changing, have a natural and powerful tendency to steal away the mind too often from its steady pursuit of any subject which we contemplate, and thereby the soul gets a habit of silly curiosity and impertinence, of trifling and wandering."—Watts, *on the Mind.*

Thus it is, that whatever excites and diverts the mind from its one train of thought, is inimical to *resverie,* and that the day is more favourable to it than the night.

Note B.

Sir Isaac Newton asks, Query 12th:—

"Do not the rays of light, in falling upon the bottom of the eye, excite vibrations in the tunica retina; which vibrations, being propagated along the solid fibres of the optic nerves into the brain, cause the sense of seeing?"

And again, Query 16th:

"When a man in the dark presses either corner of his eye with his finger, and turns his eye away from his finger, he will see a circle of colours like those in the feather of a peacock's tail. If the eye and the finger remain quiet, these colours vanish in a second minute of time; but if the finger be moved with a quavering motion, they appear again. Do not these colours arise from such motions excited in the bottom of the eye by the pressure and motion of the finger, as, at other times, are excited there by light, for causing vision? And do not the motions, once excited, continue a short period of time before they cease? When a man, by a stroke upon his eye, sees a flash of light, are not the like motions excited in the retina by the stroke? And when a coal of fire, moved nimbly in the circumference of a circle, makes the whole circumference appear like a circle of fire, is it not because the motions excited in the bottom of the eye by the rays of light are of a lasting nature, and continue till the coal of fire, in going round, returns to its former place? And, considering the lastingness of the motions excited in the bottom of the eye by light, are they not of a vibratory nature?"

Note C.

"A comparative anatomist, of profound learning and marvellous sagacity, has presented to him what to common eyes would seem a piece of half-decayed bone, found in a wild, in a forest, or in a cave. By accurately examining its shape, particularly the form of its extremity or extremities (if both ends happen to be entire), by close inspection of the texture of its surface, and by admeasurement of its proportions, he can with certainty discover the general form of the animal to which it belonged, its size as well as its shape, the economy of its viscera, and its general habits. Sometimes the investigation in such cases proceeds upon chains of reasoning where all the links are seen and understood; where the connexion of the parts found with other parts and with habitudes is perceived, and the reason is understood,—as that the animal had a trunk because the neck was short compared with its height, or that it ruminated because its teeth were imperfect for complete mastication. But frequently the inquiry is as certain in its results, although some links of the chain are concealed from our view, and the conclusion wears a more empirical aspect, as gathering that the animal ruminated from observing the print of a cloven hoof, or that he had horns from his wanting certain teeth, or that he wanted the collar-bone from his having cloven hoofs."—*Discourse on Natural Theology.*

Note D.

"Contrivance proves design, and the predominate tendency of the contrivance indicates the disposition of the designer. The world abounds with contrivances, and all the contrivances with which we are acquainted with are directed to beneficial purposes. Evil, no doubt, exists; but is never, that we can perceive, the object of contrivance.

"Teeth are contrived to eat, not to ache; their aching now and then is incidental to the contrivance, perhaps inseparable from it; or even, if you will, let it be called a defect in the contrivance, but it is not the *object* of it. This is a distinction which well deserves to be attended to. In describing implements of husbandry, you would hardly say of the sickle that it is made to cut the reaper's fingers, though, from the construction of the instrument, and the manner of using it, this mischief often happens. But if you had occasion to describe instruments of torture or execution, this engine, you would say, is to extend the sinews; this to dislocate the joints; this to break the bones. Here pain and misery are the very *objects* of the contrivance. Now nothing of this sort is to be found in the works of nature. We never discover a train of contrivance to bring about an evil purpose. No anatomist ever discovered a system of organization calculated to produce pain and disease; or, in explaining the parts of the human body, ever said, this is to irritate, this to inflame. If by chance he come at a part of which he knows not the use, the most he can say is, that it is useless; no one ever suspects that is put there to incommode, to annoy, or to torment." – PALEY.

Cicero, writing on the prevalence of design, asks, if the letters of the alphabet could arrange themselves into the annals of Ennius:—"Posse ex his in terram excussis, annales Ennii ut deinceps legi possent effici."—CICERO, *De Natura Deorum.*

St. Austin, on the universality of adaptation, writes:—"Nec avis pennulam, nec herbæ flosculum, nec arboris folium, sive partium suarum convenientia reliquit."

NOTE E.

"Though a man knew," says Dr. Reid, "that his life must be supported by eating, reason could not direct him when to eat or what, how much or how often. In all these things appetite is a much better guide than our reason. Were reason only to direct us in this matter, its voice would often be drowned in the hurry of business or the charms of amusement. But the voice of appetite rises gradually, and at last becomes loud enough to call off our attention from any other employment."

The variation of appetite, and of the means by which it is most willingly satisfied in the Italian and the Greenlander, or Russian, are not freaks of taste, but the regulation of nature to procure the proper species of food; that which is the most appropriate to the particular climate.

When we take exercise in a cold atmosphere, we respire a greater quantity of oxygen, which implies a more abundant supply of carbon in the food; and by taking this food, we form the most efficient protection against the cold. A starving man is soon frozen to death. Food supplies, to a very great degree, the place of clothing*.

A real combustion takes place in the lungs, by which the animal heat is maintained. The greater the quantity of carbon to be dissipated by respiration, the more rapid or extensive should be the respirations; that is, the greater is the quantity of oxygen required. Thus the greater the animal heat required —as in a cold climate—the more combustible should be the food; the greater should be the quantity of carbon; the food should be carbonaceous.

Note F.

It is possible to imagine inactive omnipotence; but we cannot suppose the existence of a being who should be omnipotent, and yet not infinitely wise; for an inferior power, infinite in wisdom, (and consequently omniscient,) would be more powerful,—the term would therefore be contradictory. Thus omnipotence, although it does not imply omniscience and infinite wisdom, presupposes them. "The perfect being must needs be omnipotent, both as self-existent and as immense; for he that is self-existent, having the power of being, hath the power of all-being, equal to the cause of all-being,—which is to be omnipotent *." There is a difference between knowledge and wisdom; wisdom always supposing action, and action directed by it.

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* *Vide* PROFESSOR LIEBIG'S work on *Organic Chemistry*, translated by DR. GREGORY.

Note G.

The mental elements are not constant, for culture increases the power of any element of the mind. As land is improved by tillage, so is the mind improved by exercise; the analogy is singularly perfect.

The mental elements are alike in all minds, although probably they may differ in their individual power; the ideas received into the mind are as if sub-elements; for by suggestion, they may cause a similar action to the elements themselves. Thus the mental action will be the united operation of the elements of mind, and of ideas previously formed. The argument amounts to this:—it is evident that ideas are involuntary; but yet we know by experience that we have a limited control over events, and are in that degree responsible for those events in which we are agents. It does not follow that because thought is involuntary, we are therefore irresponsible; or that because we are responsible, ideas are voluntary. Mental action is itself a mystery; how memory should reproduce thought, is a mystery. We can trace the mental process to the moment of the present, which is caused by the involuntary succession of thought; and we can trace the responsibility co-existing, and co-extensive, with the power of anticipation. But the connexion between the two is a mystery: and yet it may be said that everything is a mystery; for the most subtle

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* Grew, *Cosmologia.*

analysis can discover but little of that mind which in vain tries to know itself. In the regular succession of mental operation, everything is mysterious, because it is the ultimate boundary of analysis. It is as if the will, limited to a momentary action, —an action independent of the involuntary nature of thought, and the responsibility incurred by anticipation,—consisted of a mental energy which impelled thought in the channel prepared for it by another operation of mind.

Let the mental elements be represented by a, b, c, d, and an external exciter by f, g, &c., and the idea so formed by I; then the mental substance (to use that word for want of a better) may be represented by $a, b, c, d + I$. And again; a, b, &c. $+ I_1$, may produce I_2; and so on. Thus if $A = a, b, c, d$, and $n I = I_1, I_2$, &c., then $A + n I$ would represent the mental substance at the time of any given mental operation. If R be the result, then will R become part of $n I$: and so also will each result of every new combination.

Note H.

Dr. Reid supposes the case of a General who had been flogged when a boy at school, and which occurrence he had, very properly, quite forgotten when in the capacity of general he had gained a victory. Dr. Reid contends, that by Locke's doctrine, the General was, and was not the same person.

Note I.

"The mind of man is, as it were, by its nature, situated between its Creator and corporeal creatures; nothing, according to St. Austin, being above it but God, nor beneath it but a body."—Preface to Malbranche's *Search after Truth.*

Xenophanus, Parmenides, Zeno, Anaxagoras, Democritus, and Aristotle, supposed that matter was eternal: but Hesiod, Pythagoras, Plato, and Thales, that matter was created out of nothing, and defended that proposition by the most solid arguments.

Cicero writes, that to the soul cannot be imputed composition of parts. Anaxagoras, that what could comprehend every thing, must be itself without mixture, that it might know and contain all. Plato, that the soul is not observed by sense, but by the understanding only ; and that it derives none of its affections from the body, but finds them all in itself : also, that the soul, in its degraded (the present) state, recalled the ideas it had formerly when united to the Supreme being.

Plato calls the light of knowledge a dark light, or nocturnal day : *νυκτερινὴν ἡμέραν*, nocturnam diem. He considered the body as the prison, or rather the sepulchre, of the soul,—and even derived the word *σῶμα*, body, from *σῆμα*, tomb.

The theory of Leibnitz, of pre-existent harmony, is singularly fanciful. He supposed the mind and body to be quite unconnected with each other, and so contrived that the thought and sensation should happen at the same time. Like two clocks, which keeping the same time, point to the same hour, although completely separated.—(*See* note on *Perception.*)

It should be observed, that we know little even of what may be effected by the natural agents with which we are most acquainted. How incorrect has been the anticipation of the effects of invention—of the adaptation of mere matter! How, then, can we assert the impossibility of effects wrought by agents whose existence (until now) would, if surmised, have been deemed an atrocious absurdity? "Had it been prophesied at the close of the last century that, by the aid of an invisible, intangible, imponderable agent, man could in the space of forty years be able to resolve into their elements the most refractory compounds,—to fuse the most intractable metals—to propel the vessel or the carriage—to imitate, without manual labour, the most costly fabrics—and in the communication of ideas, almost to annihilate time and space; the prophet, Cassandra-like, would have been laughed to scorn*."

These assumptions concerning the action of the brain, have nothing whatever to do with phrenology. That *science* (as they call it) depends on observation only. If a certain conformation of head is always observed to be accompanied by a certain disposition of mind; or if in a great majority, or even if only in a simple majority of instances, a certain relation is observed between the size, shape, or formation of the head, and the natural disposition; then, nothing but the refutation of these facts by similar observations, having a directly contrary tendency, can overthrow the proof on which phrenology should be based. The proof of the truth or falsehood of phrenology depends on the truth or falsehood of the observations. In the memoirs of the celebrated Martinus Scriblerus, the mode in which the brain operates is thus described:—

"Simple ideas are produced by the motion of the spirits in one simple canal; when two of these disembogue themselves into one, they make what we call a proposition; and when two of these propositional channels empty themselves into a third, they form a syllogism, or a ratiocination. Memory is performed in a distinct apartment of the brain, made up of vessels similar and like situated to the idea, propositional and syllogistical vessels in the primary parts of the brain. After the same manner, it is easy to explain the other modes of thinking; as also why some people think so wrong and perversely, which proceeds from the bad configuration of those glands. Some, for example, are born without the propositional or syllogistical canals; in others, that reason ill, they are of unequal capacities; in dull fellows, of too great a length, whereby the motion of the spirits is retarded; in trifling geniuses, weak and small; in the over-repining spirits, too much intorted and winding; and so of the rest."

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* Professor Grove.

Note K.

"Extension, indeed, does not belong to thought, because thought is not a being; but there is need of extension to the very existence of every being, to a being which has or has not thought; or any quality whatsoever.

"The idea of space, (as also time or duration) is an abstract or partial idea; an idea of a certain quality or relation, which we evidently see to be necessarily existing; and yet which (not being itself a substance) at the same time necessarily pre-supposes a substance without which it could not exist. * *

"So space to us is not itself substance; but it necessarily infers the being of a substance which affects none of our present senses*."

Note L.

It may be affirmed that the human mind has not only a reasoning and moral power, but also an instinct; not only a mind, in the sense in which the word *mind* is used, but also an instinct, and that in the sense in which the term is generally understood. Without the aid of instinct,—of a species of mind acting antecedently to all experience,—it would be impossible to give a reasonable explanation of any operation of mind showing the least approach to perfection, antecedently to experience. The infant soon gives proof of a species of intelligence which cannot arise from experience. "It evidently receives pleasure from the caress and smile of its mother,—a delight not unworthy of the kindness of Heaven, which has communicated to the infant a happiness peculiarly its own. What can be more quickly understood than the smile of the mother, to awake in the little heart that throbs within her arms, an answering delight? Nor is there any philosophic inconsistency in supposing, whatever error there might be in affirming positively, that it may be part of a natural language of emotion, which, like the undoubted natural language of animals, is instinctively understood in every age of life, as in every nation of the globe; and which is already felt as happiness or affection, before the happiness, of which it is the promise, can itself have been felt, or even anticipated*."

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* Dr. Clarke.

The happiness of children, as Paley observes, is a happiness peculiarly their own, and one which can only be attributed to a species of instinct. Other feelings, not confined to childhood or infancy, may be traced to a species of instinct.

"The causes of pain and pleasure, whatever they are, or however they operate, seem to be the objects which, in all animals, immediately excite those two passions of gratitude and resentment. They are excited by inanimated, as well as animated objects. We are angry, for a moment, even at the stone that hurts us. A child beats it, a dog barks at it, a choleric man is apt to curse it. The least reflection, indeed, corrects this sentiment; and we soon become sensible that what has no feeling, is a very improper object of revenge†." This instinctive resentment appears to be requisite as a bodily protective power. Dr. Chalmers is of this opinion‡.

Now, when the mental elements and their corresponding exciting causes come into contact, the same effect invariably ensues. This, it may be said, is only instinct; and although in detail in each unit of action, the result is not so perfect as that of instinct, it is, from the multiplicity of its combinations collectively more perfect. This consideration brings still nearer the immaterial principles. The perfection of the one-ness of *instinctive* operation, and the great variety of the *mental* operation, together with the perfect action of instinct, and the imperfect action of mind—without experience, appear to be the only true differences between the two great impulses of animal life*. That which belongs to mind, appertains also to instinct. Animals dream. Observation has been limited (perhaps) to dogs and horses: these animals, dogs especially, seldom sleep without dreaming; they sometimes howl and bark, or cry out, as when pursuing their prey. Dogs appear to dream when in profound sleep; and this is worthy of more accurate observation. Hybernating animals probably undergo a temporary death by the gradual, and consequently painless extinction of sensation; they are, possibly, totally unconscious of the lapse of time.

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* BROWN.

† SMITH'S *Theory of Moral Sentiments.*

‡ *Bridgewater Treatise.*

Aristotle, and others of the ancients, and St. Austin, and Descartes, considered animals to be mere machines.

NOTE M.

By the term affection of the retina, is meant the material link, the nerve or the sensorium, which is the immediate cause of an excitation of the brain. The impressions made on the retina by visible objects, endure for about the one-eighth of a second; but the time varies in different individuals. An object in motion cannot be distinctly seen, unless it is in strong contrast, as to the difference of light, with surrounding objects. If it is not moving, a very slight contrast in the light will suffice. An object, moving with great rapidity, requires (to be visible) the ratio of light reflected from it to that reflected from surrounding objects, to be from one to one hundred and fifty or two hundred. If the ratio is less than this, the object will be invisible.

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* For reason guides our deed, and instinct theirs.
Instinct and reason how shall we divide?—PRIOR.

An intense light will make visible even the swiftest movements. A cannon-ball, moving with its greatest velocity, would be rendered visible, if caused to induce an electric light at the instant of passing before the eye. This is possible; because, the difference between the darkness of night, and the intense light of electricity, would cause the moving object to be visible: and the extreme rapidity of the electric light, compared to which the speed of a cannon-ball is a slow motion, would present the cannon-ball to the eye as if it were at rest. This deception would be increased by the duration of the visual impression, the ball appearing stationary during the one-eighth of a second.

Note N.

Various definitions have been given of the word dream;—from *dormire*, Latin; *drem*, Celtic; *droom*, Dutch; *ryni-an*, Anglo-Saxon, *to roam:* equivalent term is *swefen*, a vision in sleep; and *sleep* from the Dutch *slæper;* German, *sehlaffen;* Anglo-Saxon, *slap-an;* Gothic, *slepen. Dormire.* The root of the Hebrew word signifies a *fragment.* In the allegorical language of the ancients, Death was the sister of Sleep. A Greek version of the *Commentary* (by Macrobius) *on the Somnium Scipionis*, by Maximus Planudes, is extant, but it has never been printed. Nicephorus, a patriarch of Constantinople, was the author of an *Onirocriticon*, on the interpretation of dreams. He filled the patriarchate about A. D. 1260. Others make the date A. D. 810.

NOTE ON THEORIES OF PERCEPTION.

Cosmothetic idealists,—hypothetical or assumptive realists; maintain that the ideal object of which the mind is conscious, is vicarious or representative of a real object, unknown immediately, or as existing, and known only mediately through this its ideal substitute. These philosophers, thus holding the existence of an external world,—a world, however, unknown in itself, and therefore asserted only as an hypothesis. Absolute idealists maintain, that the ideal object has no external prototype; and they accordingly deny the existence of any external world.

The first class falls primarily into two classes, inasmuch as some view the ideal or representative object to be a *tertium quid*, different from the percipient mind as from the represented object; while others regard it only as a modification of the mind itself,—as only the percipient act considered as representative of, or relative to, the supposed external reality;—and is again divided, as to whether the vicarious object be material or immaterial; whether it come from without, or rise from within; whether it be infused by God or other intelligences, or be a representation in the Deity himself; whether it be innate, or be produced by the mind, on occasion of the presence of the material object within the sphere of sense, &c.

Of absolute idealism, only two principal species are possible; at least, only two have been actually manifested in the history of philosophy—the Theistic and the Egoistic. The former supposes that the Deity presents to the mind the appearances which we are determined to mistake for an external world; the latter supposes that these appearances are manifested to consciousness, in conformity to certain unknown laws, by the mind itself. The Theistic idealism is again divided into three; according as God is supposed to exhibit the phenomena in question in his own substance; to infuse into the percipient mind representative entities different from its own modification, or to determine the ego itself to an illusive representation of the non-ego.—*Edinburgh Review*, 1839.

Aristotle held, against Plato,—that previous to, and independent of, matter, there were no universal ideas or essences; and that the ideas which Plato supposes to be in the Divine mind, and the models of things, had been eternally impressed on matter.

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